Before the
COPYRIGHT ARBITRATION ROYALTY PANEL
Library of Congress

In the Matter of	)	
Distribution of the 1998-1999	)	Docket No. 2001-8 CARP CD 98-99
Cable Royalty Funds	)	

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF THE PUBLIC TELEVISION CLAIMANTS

Timothy C. Hester
Ronald G. Dove, Jr.
Russell D. Jessee
COVINGTON & BURLING
1201 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2401
(202) 662-6000

Paul Greco
Vice President & Deputy
General Counsel
PUBLIC BROADCASTING SERVICE
1320 Braddock Place
Alexandria, Virginia 22314
(703) 739-5000

Attorneys for
Public Broadcasting Service

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INTRODUCTION AND SUMMARY OF CLAIM

The Public Broadcasting Service ("PBS"), on behalf of the Public Television Claimants, hereby respectfully submits its Proposed Findings of Fact and Conclusions of Law in this proceeding.

The Public Television Claimants (also referred to as "Public Television" or "PTV") represent the interests of roughly 350 public television stations across the United States and the copyright owners of programming carried on those stations. Public Television has submitted a claim in this proceeding for 12 percent of the Basic Fund for both 1998 and 1999. Public Television does not participate in the 3.75 Fund or Syndex Fund, and therefore does not assert a claim against either.

Public Television's claim to 12 percent of the Basic Fund is supported not just by evidence from its own witnesses but also by studies and analyses of marketplace value introduced by the other claimant groups in this proceeding. Notably, the two principal studies relied on in past proceedings -- the Nielsen viewing study and the Bortz cable operator survey -- both point to double-digit awards to Public Television.

This evidence of marketplace value from 1998 and 1999 is corroborated by numerous measures indicating that PTV's share of marketplace value has increased dramatically since 1992, the year of the last litigated award. Public Television's share of viewing minutes quadrupled between 1992 and 1998-99, and its share of instances of carriage nearly doubled over that same time period. The magnitude of these changes is unprecedented and, under the principle of changed circumstances relied on in past proceedings, calls for a substantial increase in PTV's award.

The most significant changed circumstance to occur between 1992 and 1998-99 was the conversion of WTBS, by far the most widely carried distant signal, into a cable network in 1998. Copyright holders of programming on WTBS are now compensated through direct license fees rather than through the compulsory license regime. As the evidence shows, the conversion of WTBS resulted in a significant and quantifiable shift in the types of distant signal programming that cable operators collectively made available to their subscribers, with the relative value of PTV programming, which was not carried on WTBS, increasing compared to the program categories carried on WTBS.

Finally, the evidence presented in these proceedings highlights the important benefits that Public Television programming offers to cable operators in attracting and retaining subscribers. Public Television offers a mix of distinctive, diverse, highly acclaimed programming of types that cannot be found anywhere else -- and certainly not on a single channel. Public Television's educational, non-violent, and commercial-free children's programming -- from SESAME STREET to ARTHUR to BARNEY to WISHBONE -- is simply not available on advertising-supported commercial television. This is precisely the type of unique, distinctive programming that cable operators value in assembling their menu of program options and in meeting the needs of their entire subscriber base.

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF THE PUBLIC TELEVISION CLAIMANTS

PART ONE – PROPOSED FINDINGS OF FACT

I. INDUSTRY STRUCTURE

A. Overview of Cable Royalty Structure

1. Under the statutory compulsory license, cable operators are entitled to retransmit local and distant over-the-air broadcast signals upon payment of statutorily prescribed royalties. 17 U.S.C. § 111. Cable operators are not permitted to insert advertising or otherwise alter the over-the-air broadcast signals that they retransmit. Tr. 6904 (Carey); Tr. 1314 (Egan); Tr. 6771 (Green); 17 U.S.C. § 111(b)(3).

2. For the purposes of the compulsory copyright license, cable systems are classified by size. Form 3 cable systems are those that generated over $292,000 in gross receipts in a six-month accounting period. Kessler D.T. 9; Hazlett D.T. App. C-1.[1] There were 2,355 Form 3 cable systems in 1998 and 2,293 Form 3 systems in 1999. Kessler D.T. 10. Form 3 systems comprised 21.9 percent of all cable systems in 1998 and 22.3 percent of all systems in 1999. Kessler D.T. 10. Form 3 systems, however, account for the vast majority of cable royalties. Form 3 systems paid 95.4 percent of all cable royalties in 1998, and 95.9 percent of cable royalties in 1999.[2] Kessler D.T. 10; Hazlett D.T. App. C-1.

3. Form 3 systems pay royalties based on the number of distant signals that they carry. Kessler D.T. 9; Hazlett D.T. App. C-1. Basic Fund royalties are computed according to a sliding scale, based on the total number of "distant signal equivalents," or "DSEs," allocated to the distant signals carried by the system.[3] Kessler D.T. 14-16; Hazlett

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[1] Throughout these proposed findings, citations to the hearing transcript are designated as "Tr."; citations to direct case written testimony are denominated as "D.T."; and rebuttal case written testimony is designated as "R.T." Citations to testimony from the 1990-1992 cable royalty distribution proceeding that have been designated as part of the record in this proceeding use the same nomenclature with the addition of "90-92" before either "Tr.," "D.T.," or "R.T."

[2] Form 1 cable systems are those that have less than $75,800 in gross receipts per six-month accounting period. Kessler D.T. 9; Hazlett D.T. App. C-1. Form 1 systems pay a flat compulsory license fee of $28 per six-month accounting period. Kessler D.T. 9; Hazlett D.T. App. C-1. Form 2 cable systems are those that have gross receipts between $75,800 and $292,000 per six-month accounting period. Kessler D.T. 9; Hazlett D.T. App. C-1. They pay a compulsory license fee based on a fixed percentage of their gross receipts, which tops out at 1 percent and which does not vary according to the number of distant signals they carry. Kessler D.T. 9; Hazlett D.T. App. C-1.

[3] Based upon the total number of DSEs, the Form 3 cable operator pays royalties into the Basic Fund as follows: the first DSE is subject to a royalty of 0.893 percent of gross

(continued...)

D.T. App. C-1. By statute, independent stations and foreign stations carried as distant signals are assigned a rate of 1.0 DSE, and network affiliates and public television stations are assigned a rate of .25 DSE.[4] Kessler D.T. 14; Hazlett D.T. App. C-1. The statute setting these relative royalty levels was enacted in 1976. P.L. 94-553, 90 Stat. 2541, 2550 (October 19, 1976); Tr. 1213 (Hazlett).

4. All Form 3 cable systems must pay a "minimum fee" at the rate of a first full DSE (*i.e.*, .893 percent of gross receipts) even if they do not carry any distant signals. Kessler D.T. 17; Hazlett D.T. App. C-2. In 1998, 439 Form 3 systems paid a minimum fee without carrying any distant signals; and the comparable figure in 1999 was 376 Form 3 systems. Johnson D.T. 6; Canadian Ex. CDN-4-A. In 1998 and 1999, 21 percent and 20.7 percent (respectively) of total cable royalties were paid by systems that carried no distant signals.[5] Canadian Ex. CDN-4-A.

5. The Basic Fund consists of royalties paid by Form 3 systems for the carriage of signals that they could have carried under the rules of the Federal Communications Commission (FCC) prior to 1981 and royalties paid by the smaller Form 1 and 2 systems. Kessler D.T. 13-17; Hazlett D.T. 23; Librarian of Congress, 1990-1992 Cable Royalty Distribution Order, 61 Fed. Reg. 55653, 55654 (Oct. 28, 1996). The Basic Fund also includes minimum fees paid by systems that carry no distant signals and by systems that carry fewer than 1.0 DSE. Kessler D.T. 17; Trautman R.T. 7. For the two years at issue, the size of the Basic Fund is $95,591,473 in 1998 and $99,503,603 in 1999. Kessler D.T. 10, 19-20.

6. The 3.75 Fund collects the royalties that Form 3 cable systems pay to carry distant broadcast signals that they could not have carried under the FCC rules in effect before 1981. Kessler D.T. 17; Hazlett D.T. 23; Librarian of Congress, 1990-1992 Cable Royalty Distribution Order, 61 Fed. Reg. 55653, 55654 (Oct. 28, 1996). These royalties are computed as 3.75 percent of the cable system's gross receipts times the number of non-permitted DSEs carried. Kessler D.T. 17; Hazlett D.T. App. C-2. The 3.75 Fund is substantially smaller in the years at issue in this proceeding than it was in prior proceedings; it amounts to $9,884,429 in 1998 and $10,480,110 in 1999. Kessler D.T. 19-20.

7. A third royalty source, the Syndex Fund, "includes the royalties collected from large cable systems for carriage of distant signals that contain programming that would

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(...continued)
receipts, the second through fourth DSEs are subject to a royalty of 0.563 percent of gross receipts, and all subsequent DSEs are subject to a royalty of 0.265 percent of gross receipts. Kessler D.T. 9; Hazlett D.T. App. C-2.

4 These DSE values are subject to *pro rata* adjustment if a signal is distant only with respect to some portion of the cable system's subscribers -- what is called a "partially distant" signal. Kessler D.T. 19; Hazlett D.T. App. C-1.

5 A cable system that carries a distant signal or signals that account for less than 1.0 DSE nonetheless pays the fee based on carriage of 1.0 DSE (Kessler D.T. 19), but "[t]he vast majority of minimum fees are paid by systems carrying no distant signals." Bennett D.T. 3.

have been subject to black-out protection under the FCC's former syndex rules." Librarian of Congress, 1990-1992 Cable Royalty Distribution Order, 61 Fed. Reg. 55653, 55654 (Oct. 28, 1996). Since the reinstitution of the syndicated exclusivity rules in 1990, this fund is no longer significant. Hazlett D.T. App. C-1; Kessler D.T. 17-18. It amounts to approximately $169,000 for 1998 and 1999 combined and thus accounts for 0.078 percent of the cable royalties at issue in this proceeding. Kessler D.T. 19-20.

8. Minimum fees (and fees paid by Form 1 and Form 2 systems) are paid into and distributed as part of the Basic Fund administered by the Copyright Office. Kessler D.T. 10, 15-17, 19-20; Bennett D.T. 1-2. The Copyright Act, and regulations promulgated pursuant to the Act, contemplate that all royalty fees, excluding the separate 3.75 and Syndex fees, be distributed from a single aggregated fund. *See* 17 U.S.C. § 111(d); 37 C.F.R. § 256.2.

B. Cable System Capacity

9. Cable systems have physical constraints on the number of different channels that they can offer. Tr. 426 (Trautman); Tr. 1294-95, 1298 (Egan). It is expensive to add additional channel capacity. Tr. 1298 (Egan). In 1998 and 1999, channel capacity increased, but cable operators still were subject to channel capacity constraints. Tr. 427-28 (Trautman); Tr. 1295-96 (Egan). During these years, the average cable system had capacity in the range of 55 to 65 channels. Tr. 1186 (Hazlett); Tr. 1296-97 (Egan) (average capacity in 1998-1999 was 62 channels); Gruen D.T. 10 n.4 (average capacity in 1998 was 61); Tr. 428 (Trautman) ("around 54-60 channels").

10. Cable operators in 1998 and 1999 had many more programming channels to choose from than they had channel capacity to carry them. Tr. 427-28 (Trautman); Tr. 1298-300 (Egan); Fairley R.T. 6. For example, "there were 174 national cable networks in 1998. The average system channel capacity that year was 61. Thus, the average cable system had almost three times as many cable network options as available channels." Gruen D.T. 10 n.4. In addition to cable networks, cable operators have many other choices for filling their channels of capacity, including local broadcast signals, distant signals, local public access programming, and pay channels. Tr. 1299-300 (Egan).

11. Because of capacity constraints, a cable operator foregoes other programming opportunities when it elects to carry a distant signal. Tr. 1304 (Egan); Fairley R.T. 6. When a cable operator carries a distant signal, it incurs opportunity costs (in terms of foregone alternative programming) in addition to the compulsory royalty fees associated with that distant signal. Tr. 428 (Trautman); Tr. 2599-600 (Rosston); Fairley R.T. 6.

C. The Business of Cable Operators

12. Cable systems principally derive revenues from subscription fees. Ducey D.T. 5; Ducey R.T. 4. In 1998, Form 3 cable systems generated 80 percent of their revenues from subscription fees for basic and premium cable services; in 1999, that figure was 76 percent. Ducey D.T. 5-6. Cable operators also generate other revenues from the sale of local advertising on cable network channels, pay-per-view channels, and ancillary services such as broadband Internet access and cable telephony. Ducey D.T. 5-6; Gruen D.T. 17-18. In 1998,

these other revenues accounted for 20 percent of cable system revenues, and in 1999, other revenues were 24 percent of total revenues. Ducey D.T. 6.

13. Cable systems derive a small percentage of their revenues from the sale of local advertising on some cable network channels. Ducey D.T. 5; Tr. 376-77 (Trautman). During the years at issue, local advertising accounted for 5 to 6 percent of cable system revenues. Ducey D.T. 5-6 (6.8 percent in 1999); Tr. 377 (Trautman) (about 5 percent); Tr. 7675 (Gruen) (about 5 percent). In 1998 and 1999, ancillary services also represented a small portion of cable systems' revenues. Ducey R.T. 4. Revenues for digital tiers, high speed Internet access, and residential cable telephony services were projected to constitute only 2.8 percent of total cable revenues by the end of 1999. Ducey R.T. 4; *see also* Tr. 7723-24 (Gruen) (approximately 2 percent of cable revenues attributable to sale of broadband Internet access and cable telephony in 1998).

14. Accordingly, cable operators are principally in the business of selling subscriptions to a range of programming channels. Tr. 668 (Crandall); Tr. 1299-300, 1318 (Egan); Tr. 7025-26, 7066 (Carey); Ducey D.T. 5; 90-92 Tr. 1139 (Myhren); 90-92 Tr. 4955-56 (Thrall); 90-92 Tr. 2628 (Wildman). Between 1992 and 1999, cable increased its subscribership from 61.5 percent of U.S. television households (57.2 million households) to 68.0 percent (68.5 million households). Ducey D.T. 5.

15. Many witnesses testified that cable operators seek to offer a variety of programming that will attract and retain the greatest number of subscribers:

- A cable operator's collection of programming has been variously described as a "bouquet" or "menu" of different program channels aimed at attracting as many different subscribers as possible. Tr. 3504-05 (Fuller); Tr. 6109-10 (Allen); Tr. 6904 (Carey); Tr. 8004 (Gruen); Tr. 8218-19 (Thompson).

- Cable operators "would want to provide as big a menu as possible, like when you want to lure someone into a buffet, you want to just have everything possible out there." Tr. 8218-19 (Thompson).

- Cable operators are trying to attract as many different kinds of subscribers as they can with different kinds of programming. Tr. 1311 (Egan); Tr. 7028, 7066, 7069 (Carey); Tr. 8004 (Gruen); Tr. 6110 (Allen); Tr. 3504-05 (Fuller); 90-92 Tr. 1298 (Mooney); 90-92 Tr. 4956 (Thrall); 90-92 Tr. 4113 (Sieber); 90-92 Tr. 1745 (Gerbrandt).

- The cable operator undertakes to assemble and offer a package of many different program channels that will encourage people to subscribe and to pay a monthly subscription fee. Tr. 1318 (Egan); 90-92 Tr. 529 (Bortz); 90-92 Tr. 1923 (Maglio).

- Cable operators seek to provide something for everyone -- different kinds of programming to appeal to different groups of people. Tr. 6110 (Allen); Tr. 1306-07 (Egan); 90-92 Tr. 1139-40 (Myhren).

- "One way to get to decide which channels should be in that grouping is to see how many different possible audiences one can reach." Tr. 6110 (Allen).

- A cable operator would look at programming and ask whether it would, in fact, help him to increase subscribership, and that may or may not coincide with viewing because low-rated programming may actually attract additional viewers while highly rated programming may duplicate what the cable operator already has. "[Cable operators] don't want to just duplicate. They want to expand their audience base." Tr. 10240-41 (Crandall).

- Cable operators assemble packages of channels to appeal to a wide variety of subscribers by including channels with programming that is different from the programming available on local over-the-air broadcasts. Tr. 1306 (Egan); 90-92 Tr. 2609-11 (Wildman).

- "Cable operators are looking for variety, they're looking for quality, they're looking for a menu that will attract subscribers and hold them." Tr. 3504-05 (Fuller).

- Variety and choice are "absolutely fundamental" to the business of cable operators. 90-92 Tr. 676 (Bortz).

16. When a cable operator carries a particular channel, be it a cable network or broadcast signal, the operator does not assemble the programming on that channel but rather takes all of the programming assembled by the cable network or broadcaster. Tr. 493-94 (Trautman); Tr. 676, 772-773 (Crandall); Joskow R.T. 7-8. A cable operator may value only part of the programming on a particular channel, or the operator may value all of it. Tr. 493-95 (Trautman); Tr. 2653, 2818 (Rosston).

17. Because a cable operator depends primarily on subscriptions to a range of programs channels and not advertising, it will value programming differently than a broadcast station or broadcast network that is solely dependent on advertising revenues generated by a single channel of programs. Tr. 7038 (Carey); Tr. 8801-02 (Ducey); 90-92 Tr. 5081 (Thrall); 90-92 Tr. 1292 (Mooney); 90-92 Tr. 10792-805 (Scheffman). Cable operators value programming that appeals to a set of highly motivated and loyal subscribers. Tr. 1308 (Egan). Cable operators look for unique programming that is different from programming that they carry on other channels. Tr. 1306-07 (Egan); Tr. 7070 (Carey). Cable operators value programming that is exclusive to the station televising it. Tr. 1309 (Egan). Cable operators value first-run programming. Tr. 1309 (Egan).

18. Cable operators have the incentive to maximize their economic interests by developing the highest revenue yield among their mix of possible services using the relatively limited channel capacities of their systems. Tr. 668, 765-66, 826 (Crandall); Tr. 7069 (Carey); Ducey R.T. 6. Cable operators do not necessarily seek to maximize the audience for any particular distant signal (or any other particular channel of programming) but rather seek

to maximize the value of different channels of programming in terms of attracting and retaining subscribers. Tr. 8006-07 (Gruen); Tr. 841 (Crandall).

19. Basic or enhanced basic subscription tiers, which typically contain distant signals, must contain programming that encourages viewers to subscribe to cable in the first place. Ducey D.T. 7. A significant number of subscribers continue to subscribe only to basic and enhanced basic services. Ducey D.T. 7. If a subscriber particularly values programming located on a higher subscription tier, then it must purchase both the cable system's basic (or enhanced basic) tier and the higher tier to get the highly valued programming. Ducey D.T. 7. "The selection and positioning of distant signals is one of the factors that helps a cable operator maximize its basic revenue." Ducey D.T. 7.

20. When a cable operator retransmits a distant broadcast signal, it cannot alter the signal to insert advertising and thus cannot generate advertising revenues from the distant signal. Tr. 3604 (Fuller); Tr. 7674 (Gruen); Allen D.T. 4; 17 U.S.C. § 111(b)(3). "[T]he value of a distant signal to a cable system can be measured only by its ability to attract and retain subscribers." Allen D.T. 4-5.

21. In addition to local and distant over-the-air broadcast signals, cable operators carry a number of cable networks among their menu of channel offerings. Tr. 1300-01, 1306 (Egan); 90-92 Tr. 2628 (Wildman). Cable operators pay a fee (typically called a "licensing fee" or "affiliate fee") to the cable network in exchange for the right to carry the network that is the result of a free marketplace negotiation. Tr. 1374-75 (Egan). Unlike the situation with over-the-air broadcast signals that are retransmitted, cable operators typically receive rights to insert a certain number of advertising spots into a cable network's programming, referred to as "local avails." Tr. 361 (Trautman); Tr. 1313-1314 (Egan); Tr. 672-73 (Crandall). Typically a cable system would be able to insert two minutes of local advertising per hour. Tr. 361 (Trautman).

22. Local advertising revenues somewhat offset the license fees that cable operators pay for the cable network channels. Tr. 3604 (Fuller); Tr. 7674 (Gruen). A cable operator thus considers a cable network's ability to generate local ad revenues when evaluating the price that it would have to pay for the cable network's license fee. Tr. 362 (Trautman). One would expect to see higher license fees paid for a cable network where there were advertising availabilities given to the local cable operator. Tr. 3605 (Fuller). Accordingly, a comparison of relative cable network license fees does not necessarily present a true picture of relative value because one must also take into account relative advertising revenue. Tr. 369-71 (Trautman).

23. Cable operators may well value certain kinds of programming in terms of its ability to attract and retain subscribers in ways that would not be reflected in viewing figures or advertising revenues. Tr. 1312, 1317-19 (Egan); 90-92 Tr. 1242-43, 1246 (Myhren); Tr. 10240-41 (Crandall); 90-92 Tr. 1751-53 (Gerbrandt); 90-92 Tr. 2587-88 (Wildman). "Cable operators generally are far more concerned with perceived value of [a channel] than the amount of people who are viewing it at any moment in time." Tr. 1313 (Egan).

D. The Business of Cable Networks

24. Cable networks assemble different programs into a channel of programming that they then offer to cable operators in return for a fee. Tr. 7020-22 (Carey). A cable network negotiates directly with program owners for rights to the programming that will be carried on the network, and a cable network may produce its own programming. Tr. 371-72 (Trautman). Cable networks are, in effect, wholesalers of a package of programming that they sell to cable operators. Tr. 7020-22 (Carey); Joskow R.T. 8.

25. Some cable networks are widely carried by cable systems, with penetration rates above 90 percent. Tr. 3500-01 (Fuller). The audience ratings achieved by any cable network, however, are very low when compared to the ratings of commercial broadcast television. PS Ex. 34-X. Thus, cable operators carry many cable networks that receive relatively small ratings. Tr. 3498-99 (Fuller); PTV Ex. 25; PS Ex. 34-X; 90-92 Tr. 4152-53 (Sieber).

26. Cable operators pay a fee negotiated in the free marketplace for the right to carry cable networks, and operators pay no compulsory license for these networks. Tr. 1374-75 (Egan). The cable network industry has become more consolidated, so cable operators typically negotiate with a company such as Walt Disney ABC, Time Warner AOL, Viacom, or the Fox Group for a collection of cable channels. Tr. 1374-75 (Egan). Cable systems also have consolidated, and larger systems have more leverage in negotiations than smaller systems. Tr. 1381 (Egan).

27. Cable networks sell advertising time on their programming, and typically derive more revenues from advertising than from license fees. Tr. 373-74 (Trautman); Tr. 1313 (Egan). On average, cable networks generate more than 50 percent of their revenues from advertising. Tr. 373-74 (Trautman). Accordingly, cable networks' decisions about the programming that they carry are driven by anticipated advertising revenues in addition to subscriber fees. Tr. 373 (Trautman). Because cable networks generate two streams of revenue from their programming, the license fees charged to cable operators, standing alone, are likely to represent less than the full value to cable operators of particular programming. Tr. 783-84 (Crandall).

E. The Business of Over-the-Air Commercial Broadcasters

28. In contrast to cable operators, over-the-air commercial broadcast stations generate revenues exclusively from advertising. Tr. 6715 (Green); Tr. 6872 (Carey). A commercial broadcaster does not offer a menu of different channels or programming sources, but instead offers a single channel of programming. Joskow R.T. 5-6. The success of an over-the-air commercial broadcast station depends on the programming on that single channel. Tr. 7034-35 (Carey).

29. Commercial broadcast stations are driven by advertising considerations in deciding on the programming that they carry. Joskow R.T. 7. "The primary driver for creating [a broadcaster's] programming package is how attractive it is to local broadcast viewers and thus the ability to sell advertising in that market." Joskow R.T. 7. The

possibility that a station also will be carried as a distant signal in a distant market, however, does not enhance the station's advertising revenues. Joskow R.T. 6-7; Tr. 6727-28; 90-92 10792-805 (Scheffman).

30. The success of the commercial broadcaster's business depends on the viewing audiences generated for its specific channel of programming. Tr. 7034-35 (Carey). Ratings and viewing data are fundamental to the business of a commercial over-the-air broadcaster. Tr. 2284-88 (Alexander); 90-92 Tr. 1148 (Myhren); 90-92 Tr. 1296-97 (Mooney).

31. Because a commercial broadcaster is dependent on advertiser support, it must maximize audience size for particular programs. 90-92 Tr. 2543, 2587-88 (Wildman). Over-the-air commercial broadcasters have an incentive to maximize viewing audiences in a way that cable operators do not. Tr. 7022-24, 7038 (Carey); 90-92 Tr. 2544-45, 2579, 2587-88 (Wildman).

32. Broadcasters make programming decisions based primarily on what will attract viewers so that broadcasters can maximize advertising revenue. Tr. 793-94 (Crandall); Joskow R.T. 6; 90-92 Tr. 2543-46 (Wildman). This is different from the incentive of a cable operator to add programming that adds variety to what is already available via over-the-air broadcasting. Tr. 794 (Crandall); 90-92 Tr. 2544-45 (Wildman); 90-92 Tr. 4112-13 (Sieber).

33. Once a broadcaster has assembled its package of programming based on local advertising considerations, a cable operator that would retransmit the broadcaster's signal as a distant signal is faced with a fixed configuration and quantity of programming. Tr. 794 (Crandall); Joskow R.T. 6. The cable operator would decide which distant signals to purchase based on the value of the programming to it in attracting and retaining subscribers. Tr. 794 (Crandall); Tr. 7022-24 (Carey); Joskow R.T. 6.

34. Over-the-air commercial broadcasters must offer programming responsive to the needs of advertisers seeking to reach local markets. Tr. 6693 (Green). This tends to limit the diversity of programming that local commercial broadcasters offer. 90-92 Tr. 2607-09 (Wildman).

35. Syndicated programming that is carried on broadcast and independent stations, including superstations, contained approximately 17:48 minutes of non-programming time per hour of programming. Fuller R.T. 8. Local news on broadcast stations includes approximately 16:19 minutes of non-programming time per hour of programming. Fuller R.T. 8. In contrast, public television includes 5:56 minutes per hour of non-programming time, even taking account of "pledge drives." Fuller R.T. 8.

F. The Business of Program Syndicators

36. Syndication refers to the licensing of television programming on a market-by-market basis to local broadcast stations. Green D.T. 3. For maximum exposure and in order to sell national advertising, some syndicators purchase time from or license their shows to both broadcast stations and cable networks. Tr. 6311 (Winkelman); Winkelman D.T. 7.

37. There are two types of syndicated series: (1) "off-network" series that originally aired on broadcast networks and (2) "first-run" series that went directly to syndication. Tr. 6204 (Valenti); Tr. 6622 (Green); Green D.T. 3-4. Traditionally, off-network series needed 100 episodes to go to syndication, but in the current marketplace, it is not uncommon to see programs going to syndication with fewer than 100 episodes. Green D.T. 5-6; Tr. 6217-18 (Valenti).

38. Program syndicators may license rights to over-the-air broadcast signals in return for cash, barter, or a combination of the two. Green D.T. 10-13. Program syndicators also may simply purchase airtime from broadcasters in order to ensure that their programs are carried. Winkelman D.T. 6. Some program owners continue to sell their programs solely for cash, but barter is prevalent. Green D.T. 11. Under a typical barter arrangement, the syndicator takes 50 percent of the advertising time to sell to national advertisers and the broadcast station retains 50 percent for itself to sell to local advertisers. Green D.T. 11; 90-92 Tr. 4393 (Green).

39. Syndication generally involves "stripping" a program to air five days a week in a particular time slot. Tr. 6701, 6708 (Green); Green D.T. 5. Because it takes 100 or fewer episodes to go into syndication, syndicated programs generally will be repeated two or three times during a given broadcast year. Tr. 6705 (Green). Further, the emphasis in syndication on repetition of a program during a particular time slot, every weekday, leads to syndicated programs that are "light" fare suitable for daily viewing without heavy involvement of the viewer. Tr. 6701-02 (Green). Syndicated programs tend to be heavily focused on talk shows and "reality" shows (for first-run syndication) and half-hour comedies (for "off network"). Tr. 6699, 6705-06 (Green).

40. First-run series will not begin production until an *ad hoc* "network" of stations reaching at least 70 percent of all television households commit to purchasing the series. Green D.T. 6. The same point also applies to "off-network" series -- they cannot go into syndication until at least 70 percent of television households will be reached by the stations licensing the program. Tr. 6716 (Green). While 70 percent is viewed as an "absolute minimum" for syndication (Green D.T. 6), the objective for syndication is generally 80 percent of all television households. Tr. 6716-17 (Green). These targets are needed to ensure sufficient penetration to allow for the sale of national advertising by the syndicator. Tr. 6717 (Green).

41. Given the objective of having 70 to 80 percent coverage for television households in local markets for any syndicated program, there is similarly a 70 to 80 percent probability that a syndicated program carried on a distant signal will duplicate the <u>same</u> syndicated program also found in the local market. Tr. 6723 (Green). Further, because of advertising considerations, syndication typically requires that the <u>same</u> episode be aired in each local market where the syndicated program is carried, and often the syndicated program will air in the same day part in each local market. Tr. 6723 (Green). As a result, if a distant signal includes a syndicated program that has also been syndicated in the local market (at least a 70 to 80 percent probability), the episodes will be identical on any given day and likely will also be aired in the identical day part. Tr. 6723-27 (Green).

42. Syndicators of over-the-air programming sell advertising based on national viewership. Green D.T. 13. Success for a syndicator is measured in terms of viewing ratings and advertising revenue. Tr. 6274-75 (Winkelman); Winkelman D.T. 7. Value for the program syndicator is based upon the sale of advertising time and anticipated advertising revenues. Tr. 6713 (Green); Green D.T. 13. Even when a program owner is compensated solely through barter, the syndicator is also concerned about ensuring that the local broadcast station generates good ratings for its own advertisements. Tr. 6713 (Green).

43. Certain types of programming simply are not syndicated because the risks are too great that they will not generate a sufficient audience to be profitable. Tr. 6734-35 (Green). Syndicators would not take the risk to develop certain innovative or specialty programming. Tr. 6736 (Green). For example, commercial television will not support the syndication of educational children's television of the type found on Public Television. 90-92 Tr. 4226-30 (Claster).

G. Syndicated Exclusivity Rules

44. Effective January 1, 1990, the FCC reinstituted its so-called "Syndicated Exclusivity" or "Syndex" rules.[6] Tr. 6482 (Kessler). These rules were in effect throughout 1998 and 1999. Tr. 6482 (Kessler).

45. Under the Syndex rules implemented by the FCC in 1990, if a broadcast station had been granted exclusive rights to a syndicated program or movie in its local broadcast area, the station could require a cable system to "black out" that program or movie from a distant signal imported into that local broadcast area. Tr. 6398-99 (Kessler). These rules applied only to syndicated programming and movies. Tr. 6401 (Kessler).[7]

46. The FCC enacted the Syndex rules in response to the argument of the MPAA that owners of syndicated programming were being harmed by the importation of

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6 An earlier version of these FCC Syndex rules was in effect before 1981. Kessler D.T. 17; Tr. 6394 (Kessler). The Syndex rules were rescinded by the FCC in 1981 and did not go back into effect until January 1, 1990, pursuant to an FCC order adopted on May 18, 1988. 90-92 Tr. 2903 (Cooper).

7 When the FCC eliminated its earlier version of the Syndex rules in 1981, the Copyright Royalty Tribunal established a "syndicated exclusivity surcharge," which was intended to compensate program owners who had previously been entitled to invoke protection under the Syndex rules previously in effect. 90-92 Tr. 2887 (Cooper). That surcharge was paid into a separate Syndex Fund. Tr. 1196 (Hazlett). When the Syndex rules were reinstituted in 1990, the syndicated exclusivity surcharge and the Syndex Fund were effectively eliminated. Hazlett D.T. App. C-1. In limited circumstances where the FCC Syndex rules do not apply, there is still a syndicated exclusivity surcharge, and as a result a small amount of money was paid into the Syndex Fund during the years at issue in this proceeding. Tr. 6399 (Kessler). In this proceeding, the Public Television Claimants are not making a claim for any royalties in the Syndex Fund.

distant signals into local over-the-air broadcast markets. Tr. 6397 (Kessler); 90-92 Tr. 2887-88, 2890-91, 2894-95, 2901-02 (Cooper). When the Syndex rules are invoked, they prevent injury to the syndicator from distant signal retransmission because the program being carried on the distant signal is blacked out. Tr. 6398-99 (Kessler); 90-92 Tr. 4458, 4512 (Green). Similarly, the cable operator gains no benefit from the program because it is blacked out and unavailable.

47. Owners of syndicated programming have a choice as to whether to license their programming with exclusive rights in local over-the-air broadcast markets and often do grant exclusive rights to local broadcasters. Tr. 6485-86 (Kessler); Tr. 6708, 6711-12, 6780-81 (Green). A local over-the-air broadcast station typically will pay less money in license fees if the program owner cannot license exclusive rights in that local market. Tr. 6478-79 (Kessler).

H. Carriage of Superstation WGN

48. WGN, which is a local broadcast station in Chicago and the last remaining "superstation," was by far the most widely carried distant signal in 1998 and 1999. Egan D.T. 6; Tr. 6564 (Kessler). In 1998 and 1999, slightly fewer than 60 percent of all Form 3 cable systems carried WGN. Hazlett D.T. App. D-1; Kessler D.T. 10. WGN itself does not have any cable subscribers.

49. Carriage of WGN as a distant signal increased from 1,258 Form 3 cable systems in 1992(2) to 1,368 systems in 1998(2) and 1,363 systems in 1999(2). Hazlett D.T. 22 n.14, App. D-1.

50. There is not nearly as much live sports programming on WGN as on cable network ESPN. Tr. 1321-22 (Egan). Nonetheless, former cable operators testified that when their systems chose to retransmit WGN as a distant signal, it was because of WGN's sports programming. Tr. 1324 (Egan); Tr. 6126-27 (Allen). They testified that they would not have carried WGN if all it aired were movies and syndicated programming. Tr. 1324 (Egan); Tr. 6127 (Allen).

51. For purposes of WGN's satellite feed for distribution to markets outside of Chicago, WGN deletes those programs to which broadcasters may have exclusive rights in other markets and adds substitute programming that is not subject to the Syndex rules and that is not subject to compensation in this proceeding. Tr. 1324 (Egan); Tr. 6565 (Kessler); Tr. 6710-11 (Green); 17 U.S.C. § 111(d)(3). Dr. William Fairley, a statistician testifying on behalf of the Public Television Claimants, estimated that 53.2 percent of programming on distant signal WGN in 1998 and 54.1 percent in 1999 were movies and syndicated series substituted for the programming originally broadcast locally on WGN in Chicago. Fairley R.T. 18-19. Dr. Fairley based these estimates on data from the Fratrik time study. Fairley R.T. 18 n.14. Dr. Ducey, on behalf of the Commercial Television Claimants, reached a similar conclusion, finding that 54.6 percent of WGN's local schedule in 1998-99 was replaced by non-compensable programming. Ducey D.T. 8. Except for the local area around Chicago, where cable systems might have picked up the over-the-air WGN broadcast as a distant signal, more than 99 percent of cable systems around the country that carried WGN as

a distant signal carried this substituted programming. Tr. 7381-83 (Lindstrom); Tr. 6579-81, 9743 (Kessler).

I. Programming on Fox

52. For the purposes of this proceeding, Fox is not a "network," unlike ABC, CBS, and NBC. *1990-92 Cable Royalty Distribution Order*, 61 Fed. Reg. 55653, 55660 (Oct. 28, 1996). Thus, all programming on a distantly retransmitted signal of a Fox affiliate station is compensable in this proceeding. *Id.*

53. Only programming on a Fox affiliate station that is retransmitted by a system outside of the station's local market, however, is compensable. Tagliabue D.T. 5. In 1998 and 1999, approximately 230 Form 3 cable systems retransmitted distant Fox signals. Tr. 135 (Tagliabue); Tagliabue D.T. 6. For approximately 130 of those systems, the distant Fox station was carried in addition to at least one local Fox station. Tr. 135-36 (Tagliabue); Tagliabue D.T. 6.

54. When a cable system carries both local and distant Fox stations, sports programming such as the Super Bowl, the World Series, and practically all other post-season football and baseball games would be shown at the same time on both the local and distant Fox stations. Tr. 137-38 (Tagliabue).

55. From among the 130 cable systems carrying both local and distant Fox stations, approximately 40 systems carried distant Fox stations that regularly broadcast NFL games different from the games broadcast by the local Fox station. Tr. 137 (Tagliabue). An additional 20 to 25 systems carried distant Fox signals that periodically broadcast different NFL games from the games broadcast by the local Fox station. Tr. 137-38 (Tagliabue).

56. For approximately 100 cable systems in 1998 and 1999, a distant Fox station was the only Fox station that the systems carried. Tr. 135-36 (Tagliabue); Tagliabue D.T. 6. These 100 systems accounted for approximately 1.8 percent of subscribers receiving distant broadcast signals in 1998 and 1999. Tr. 177-78 (Tagliabue); NAB Ex. 1-X.

57. The amount of license fees received by the NFL for the right to broadcast football games is significantly influenced by the potential advertising revenues of the purchasers of the rights to the programming. Tr. 149-153 (Tagliabue); Tr. 707-08 (Crandall).

II. MARKETPLACE DEVELOPMENTS BETWEEN 1992 AND 1998-1999

A. Conversion of WTBS and Withdrawal of WWOR

58. During the 1990-92 time period and until 1997, WTBS was the most widely carried distant signal. Tr. 1326 (Egan); Johnson D.T. 3-4. WTBS was carried as a distant signal by 2,113 Form 3 cable systems in 1992, and by 2,217 Form 3 systems in 1997. Hazlett D.T. 21, App. D-1. Approximately 95 percent of all Form 3 cable systems carried WTBS as a distant signal before 1998. Ducey D.T. 8-9.

59. WTBS converted from a broadcast superstation to a cable network ("TBS") as of January 1, 1998. Hazlett D.T. 21; Ducey D.T. 4, 7. Thus, "[a]s of January 1, 1998, essentially no cable systems carried WTBS as a distant signal pursuant to compulsory licensing but, rather, paid a negotiated fee for TBS carriage rights." Hazlett D.T. 21. In 1998, only about 0.4 percent of Form 3 cable systems carried WTBS as a distant signal. Ducey D.T. 8.

60. Superstation WWOR-TV ceased to be widely carried as a distant signal as of January 1, 1997, when the station ended widespread satellite distribution. Hazlett D.T. 20-21. The number of Form 3 cable systems carrying WWOR as a distant signal declined from 473 in 1992(2) to 32 in 1998(2) and 33 in 1999(2). Hazlett D.T. 21, App. D-1.

61. WTBS carried programming relating to five claimant groups -- Program Suppliers, Joint Sports Claimants, Commercial Television, Devotionals, and Music. Hazlett D.T. 39-40. WTBS primarily carried movies and syndicated programming, but sports also was a significant part of the mix. Tr. 1329 (Egan); Ducey D.T. 9. WTBS was a significant part of the Program Suppliers' claim in the 1990-1992 cable royalty proceeding. Tr. 6229 (Valenti). WTBS did not carry PTV programming or Canadian programming. Hazlett D.T. 40; Tr. 5294 (Bennett).

62. Since January 1998, cable systems have paid cable network TBS a license fee for its carriage. Hazlett D.T. 21; Ducey D.T. 7-8; Gruen R.T. 25-26. Those license fees have been higher, by a factor of three or four, than what cable systems previously paid in compulsory license fees for the carriage of superstation WTBS. Gruen R.T. 26. Thus, cable systems that continued to carry TBS in 1998 and 1999 still received the value of the programming but in exchange for private licensing fees. Tr. 1194-95 (Hazlett); Tr. 10516-18 (Gruen). Owners of programming on TBS were still compensated after 1998, but through a different mechanism from the compulsory copyright royalty fund. Tr. 1195 (Hazlett); Tr. 10518 (Gruen).

63. During the years 1998 and 1999, cable network TBS has been carried by virtually all of the Form 3 systems that previously carried WTBS as a distant signal. Ducey D.T. 8. WTBS/TBS's overall coverage stayed roughly constant between 1997 and 1998 at about 97 percent of all U.S. households with multichannel service. Ducey D.T. 8.

64. Instances of carriage[8] of independent stations (such as WTBS, formerly) by Form 3 cable systems declined from an all-time high of about 5,000 total instances in 1992 to about 2,300 in 1999. Ducey D.T. 8; Johnson D.T. 10. This decrease in the number of instances of distant carriage is primarily attributable to the change of WTBS from a distant signal carried under the compulsory copyright regime to a cable network station carried pursuant to private negotiations. Ducey D.T. 8; NAB Ex. 2; Johnson D.T. 10.

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8 An instance of carriage is counted as each case of a cable system carrying a distant signal, so that a single system carrying two distant signals would have two instances of carriage.

65. Because WTBS was the most widely carried distant signal before 1998, when it was removed from the distant signal universe, the relative mix of instances of distant carriage among different signal types and the relative mix of subscriber instances changed dramatically. Tr. 5473-74 (Bennett). In addition, the overall configuration of programming on distantly retransmitted signals changed significantly. Ducey D.T. 9, 11-12. The relative amount of syndicated programming and movies (Program Suppliers' programming) on distant signals fell significantly from 1992 to 1998-1999 because of the WTBS switch. Ducey D.T. 10-12. "WTBS was a very significant factor in the Program Suppliers share for many years, but it essentially falls out of the equation in 1998 and 1999." Ducey D.T. 12.

B. Decline in Royalty Fund and Effect of Minimum Fees

66. Royalties paid into the Basic Fund declined from $143.2 million in 1992 to $98.2 million in 1998 and $97.1 million in 1999. Hazlett App. B-1; *see also* Johnson D.T. 4 (total distant signal royalties declined from $154 million in 1997 to $108 million in 1998).

67. As previously noted (¶ 4, *supra*), Form 3 systems are required by statute to pay a minimum license fee whether or not they carry any distant signals. During the earlier years of the 1990s, prior to the WTBS departure, only a few dozen systems at most paid the minimum fee without carrying any distant signals. Johnson D.T. 6. In 1998 and 1999, the number rose to an average of 439 and 376 respectively, for the simple reason that these systems had previously carried <u>only</u> WTBS as a distant signal. Johnson D.T. 6; Bennett D.T. 3; Canadian Ex. CDN-4-A. Cable systems still carried WTBS (now the TBS cable network channel), but as discussed above they did so through private licensing agreements outside of the compulsory copyright regime. Tr. 10516-18 (Gruen); Ducey D.T. 8.

68. Minimum fees as a percentage of all royalty fees paid by cable operators have increased dramatically since the 1990-92 period. Bennett D.T. 2; Johnson D.T. 6. In the 1990-92 period, minimum fees paid by cable operators that carried no distant signals accounted for less than 0.2 percent of royalties paid. Canadian Ex. CDN-4-A. In the 1998-1999 period, minimum fees paid by cable operators that carried no distant signals accounted for more than 20 percent of all royalties. Canadian Ex. CDN-4-A; *see also* ¶ 4, *supra*.

C. Legislative Changes

69. Dr. Thomas Hazlett, on behalf of the Joint Sports Claimants, testified as to certain legislative changes that occurred between 1992 and 1998-1999. Specifically (1) in 1992, Congress authorized regulation of cable rates, (2) in 1992, Congress imposed "must-carry" and "retransmission consent" obligations on cable systems for local broadcast signals, and (3) in 1994, Congress made the local area for the purposes of the compulsory copyright licensing regime consistent with the local area for the purposes of must-carry requirements. Hazlett D.T. 5-6, 13-20. Dr. Hazlett testified that these changes impacted the amount of royalties paid under the compulsory copyright license regime. Hazlett D.T. 23-35.

70. There were no further legislative changes after 1994 that affected compulsory copyright royalty payments. Tr. 969-70 (Hazlett).

1. Rate regulation

71. The 1992 Cable Act required cable operators to establish a Basic Service Tier ("BST"), consisting of, among other things, all local and distant broadcast television signals (other than satellite-delivered superstations, whose carriage on the BST is optional). Hazlett D.T. 13. The 1992 Act also authorized local franchising authorities, subject to FCC oversight, to regulate the fees that cable systems charge for the BST. Hazlett D.T. 13.

72. Congress enacted rate regulation in the 1992 Cable Act after finding that cable rates had increased since deregulation of the rates, and that cable systems did not face local competition and had undue market power. Tr. 1048-49 (Hazlett).

2. Must-carry and retransmission consent

73. The 1992 Cable Act also imposed "must-carry" and "retransmission consent" requirements on cable operators, which allow commercial broadcast stations to choose mandatory local cable carriage or to require local cable systems to obtain the broadcaster's consent to carry its signal. Hazlett D.T. 15; Allen D.T. 6. Non-commercial stations may only invoke must-carry rights, and these rights only apply in their local markets. Hazlett D.T. 15; Allen D.T. 6.

74. The must-carry rules adopted pursuant to the 1992 Cable Act only applied to carriage of broadcast stations by cable systems in local markets; must-carry does not involve the carriage of broadcast stations outside their local markets (with one exception noted below). Tr. 1113-14, 1182, 1230, 1245-46 (Hazlett). PBS and public television in general favored local must-carry regulation so that local stations would be ensured of cable carriage in their local markets. Wilson R.T. 2. PTV support for local must-carry requirements, involving carriage in local television markets on local cable systems, presents different policy issues and considerations from those raised by distant signal carriage. Wilson R.T. 1-3; Tr. 9581, 9594, 9604, 9620-24 (Wilson).

75. Adoption of must-carry rules did not legally "crowd out" distant signals from cable systems' line-ups. Because channel capacity increased during the 1990s, any crowding out of distant signals would have been a consequence of decisions by cable operators to choose cable networks or other programming channels instead of distant signals. Tr. 1184-85 (Hazlett).

76. Under the 1992 Act, non-commercial stations were given no retransmission consent rights. Tr. 1179-80 (Hazlett); Allen D.T. 6. Retransmission consent applies only to commercial broadcast signals. Hazlett D.T. 17.

77. Cable systems that have between 13 and 36 available channels and no local non-commercial stations are required to retransmit a distant non-commercial station. Hazlett D.T. 15. However, this statutory requirement has limited application in the 1998-99 period because most Form 3 systems had more than 36 available channels in 1998 and 1999. Tr. 10544 (Gruen); Tr. 1186 (Hazlett). In 1998, cable systems had an average of 56 activated channels, and in 1999, average activated channels increased to 66. Tr. 1186 (Hazlett). Less than 5 percent of subscriber instances were accounted for by systems matching this must-

carry criteria in 1998-1999. Tr. 9131 (Johnson). Further, whether or not this statutory requirement applied to them, cable systems without a local PTV signal invariably import at least one distant PTV signal (Fuller D.T. 3-4) -- so the statutory requirement may be a "non-binding constraint" that does not alter behavior (Tr. 9131 (Johnson)).

3. Expansion of compulsory copyright local service area

78. The 1994 Satellite Home Viewer Act made a broadcast station's "local service area" under the compulsory copyright license (Section 111(f) of the 1976 Copyright Act) consistent with a station's local market for the purposes of must-carry/retransmission consent under the 1992 Cable Act. Hazlett D.T. 19. The 1994 Act eliminated the anomaly where a station could insist on must-carry rights but also was considered distant for the purposes of the compulsory copyright license. Tr. 1107, 1113 (Hazlett).

79. The 1994 Act did not expand the local area for which broadcast stations could impose must-carry obligations on cable systems. *See* 17 U.S.C. § 111(f). The must-carry requirements of the 1992 Cable Act, which took effect in 1993, already were operating, so that the 1994 Satellite Home Viewer Act did not require cable systems to carry any additional local broadcast signals.

80. The effect of the 1994 Act's expansion of the local area for purposes of the compulsory copyright license was that some cable systems that previously had carried certain broadcast stations as distant signals could consider the signals to be local. Hazlett D.T. 19-20. A related effect is that some previously "fully distant" signals would have become "partially distant" because of the expanded local service area.

81. It is not possible, however, to discern from data on partially distant carriage whether a particular cable system's headend is within or without a broadcaster's local must-carry area. Tr. 9239-40 (Johnson). Accordingly, it is not possible to tell from the data on partially distant signals whether or not those signals are subject to must-carry requirements. Tr. 9240 (Johnson).

D. Other Marketplace Factors

82. Many factors influence royalty payments, which fluctuate significantly from year to year. For example, total royalty receipts fell 18 percent from 1989 to 1990, and fell 13 percent from 1996 to 1997 (the year <u>before</u> WTBS left the pool). Johnson D.T. 4. During the same period, subscribers to Form 3 cable systems increased from 47.1 million in 1992 to 58.5 million in 1998 and 59.8 million in 1999. Hazlett D.T. 10-11.

83. Factors other than legislative changes and superstation changes affected the amount of royalties paid by cable systems. Tr. 971, 992-93 (Hazlett). Marketplace factors that would have had some effect on the amount of royalties paid by cable systems included the number of subscribers, subscription rates charged, number of DSEs, regulatory changes, consolidation of systems, new systems, divestiture, cheating, profit-maximizing pricing, competition, politics, advent of satellite TV (with offerings not available on cable), the advent of new cable networks, economic recession, dissatisfaction by cable operators with distant signals, and more. Tr. 993-95, 1027-38, 1055-58, 1072-76, 1137-38, 1162-64, 1167-68,

1189-90 (Hazlett). For instance, cable operators could make profit-maximizing choices about pricing various service tiers that had the effect of reducing royalties paid into the compulsory copyright fund. Tr. 1059 (Hazlett). Local competition from another cable system could also affect cable rates and thus affect royalties. Tr. 1072-73 (Hazlett). Expansion of the cable subscriber base and revenues, substitution between cable networks and distant signals, and changes within the composition of distant signals carried also could affect year-to-year royalty receipts. Johnson D.T. 4. As new cable network stations became available in the 1990s, they could be substituted for distant signals, also reducing the number of DSEs cable systems paid royalties for. Tr. 1137-38, 1189-90 (Hazlett); Tr. 5441-42 (Bennett). Further, macroeconomic effects such as recession or household disposable income could impact cable penetration and cable rates. Tr. 1163-64 (Hazlett).

84. The number of DSEs could change because of the decisions of individual systems to drop distant signals. Tr. 994-95 (Hazlett). In deciding whether or not to drop a distant signal, a cable operator would consider such factors as channel capacity, effect on subscribership, and cost. Tr. 995 (Hazlett).

85. There was a trend to consolidation of cable systems during the 1990s. Tr. 1027 (Hazlett); Tr. 5298 (Bennett) (systems carrying Canadian signals). Further, some larger cable systems divested smaller parts of their systems, creating new smaller cable systems for royalty purposes. Tr. 1028-29 (Hazlett). Because Form 3 systems pay royalties on a sliding scale based on the number of distant signals carried, while Form 2 systems pay a flat rate regardless of the number of distant signals carried, recharacterization of a cable system from Form 3 to Form 2 could affect fees paid into the royalty fund. Tr. 1035-37 (Hazlett).

86. DirecTV satellite service began competing with cable in 1994 and EchoStar satellite service entered the market in 1996. Tr. 1075 (Hazlett); Tr. 7542 (Gruen); Gruen D.T. 16. "The inexpensive nature of DBS dishes and convenience of having programming packages have made DBS a real competitive alternative to cable for many consumers." Travis D.T. 5. The advent of competition to cable from satellite service would impact cable penetration, and hence royalty payments. Tr. 1162-63 (Hazlett).

E. Increased Supply of Syndicated Programming, Movies, and Sports Programming on Cable Networks

87. Basic cable channels TBS and USA, among others, carried in 1998 and 1999 the same types of syndicated programming, movies, and sports that were carried on retransmitted distant broadcast signals. Fuller R.T. 5; Tr. 6749-51 (Green).

88. In 1998, the following cable networks carried either or both movies and syndicated programming: TBS, Discovery, USA, TNT, Nickelodeon (Nick at Nite), A&E, TNN, Lifetime, Family, The Learning Channel, American Movie Classics, VH-1, Cartoon Network, History Channel, Disney, Comedy Central, E!, Sci-Fi, FX, BET, Court TV, TV Land, Bravo, Turner Classic Movies, Hallmark, WE, Game Show Network, Oxygen, Toon Disney, BBC America, Noggin, Independent Film Channel, SoapNet, National Geographic, Fox Movie Channel, International Movie Channel, and Ovation. Tr. 8132-36 (Thompson).

In 1998 and 1999, the cable channels A&E and Lifetime also carried syndicated programming and movies of the types that were available on broadcast signals. In addition to TBS, USA, A&E, and Lifetime, Nickelodeon (Nick at Nite) and ABC Family (formerly Fox Family) carried significant syndicated programming. Fuller R.T. 5; Tr. 6749-51 (Green).

89. Of the cable networks listed above, the following launched after 1992: TBS, TV Land, Game Show Network, FX, Turner Classic Movies, Fox Movie Channel, Independent Film Channel, SoapNet, WE, Oxygen, Ovation, Toon Disney, BBC America, Noggin, National Geographic, History Channel, Sci-Fi (9/92), and Cartoon Network (10/92). PTV Ex. 2-R. The 1990s saw the launch of specialized cable channels carrying syndicated programming, including TV Land, which shows syndicated re-runs 24 hours per day, and the Game Show Network, which as its name implies carries only game shows. Fuller R.T. 5; PTV Ex. 2-R; Tr. 8138 (Thompson).

90. "[Movies] are like the universal donor of a lot of cable channels. Court TV was showing their crime time in prime time movie, which was essentially just [a] movie[] with a gun in it." Tr. 8137 (Thompson). In 1998 and 1999, movies were available on premium cable channels, pay-per-view cable services, and on network television. Tr. 8137 (Thompson). Movies also are available in theaters, on videotape and DVD for home use. Tr. 6224 (Valenti); Tr. 8136 (Thompson). "[There are] lots of places one could see movies." Tr. 8136 (Thompson). Furthermore, in 1998-99, movies became a less important source of syndicated programming to independent broadcast stations as more cable networks featured movies in their program line-ups. Tr. 6745-46 (Green). "There are a lot of movies and syndicated shows in other places. So its harder to differentiate the value of those programs on one channel, such as a distant signal." Tr. 6127 (Allen).

91. Almost all popular syndicated shows end up on cable networks. Tr. 8137-38 (Thompson). "Eventually, as the program ages and new hits become available for syndication, it moves to cable channels like TV Land or Nick at Nite. This sequence was followed by many favorites of the past years, including *Happy Days*, *The Cosby Show*, and *Cheers*." Tr. 8138 (Thompson); Thompson D.T. 6-7. Some series go straight to cable without being shown on local broadcast stations. Thompson D.T. 7. Syndicated programs that are on local broadcast stations also can be on cable networks at the same time. For example, some syndicated programs are available on both TV Land and local broadcast stations. Tr. 8138 (Thompson). Local broadcast stations are generally the last stop for syndication of series and movies after they have been syndicated to other outlets. Tr. 6746-47 (Green).

92. Babe Winkelman testified for Program Suppliers that his syndicated programs are available on cable network channels as well as broadcast stations, and, in fact, his programs do not run on local broadcast stations as much as they previously had. Tr. 6309-10 (Winkelman).

93. Sports leagues sell the rights to televise their games to national broadcast networks and to national cable networks. Tr. 153-54 (Tagliabue). Individual teams also sell the rights to televise some of their games to local broadcasters and to regional sports network stations. NAB Ex. 53-R-X. Consequently, cable systems will have local broadcast stations

and cable network channels with live sports in addition to the live sports on any distant signal they might carry. Tr. 826 (Crandall).

94. In November 1993, ESPN launched ESPN2, which carries sports programming similar to the programming on ESPN and by 1998 was carried by Form 3 cable systems nearly as universally as was ESPN.[9] Tr. 541-42 (Trautman). So when evaluating the additional benefit of a distant signal with sports, a cable operator would have to take into account that its cable system likely already carries ESPN and ESPN2. Tr. 542-43 (Trautman).

95. Regional sports networks on cable provide substantial numbers of games of regionally important teams. Tr. 658 (Crandall). From 1992 to 1998-1999, regional sports cable networks increased in prominence relative to local broadcasters, airing many more baseball games and increasing subscribership. Ducey R.T. 10-11. Between 1992 and 1998, Major League Baseball reversed its practice of licensing substantially more games to broadcast stations than to regional sports networks; by 1998 it was licensing substantially more games to regional sports networks. Ducey R.T. 11; NAB Ex. 53-R-X. For example, in 1998, 15 Minnesota Twins games were licensed to broadcast, while 105 games were licensed to regional sports networks. Tr. 9863 (Fuller).

96. Chicago Cubs baseball games licensed for broadcast on WGN decreased from 140 in 1992 to 90 in 1998 and 91 in 1999. Ducey R.T. 10. (In 1998, nine Cubs games were shifted back to WGN from regional sports networks. Tr. 8978 (Ducey).) Cubs games licensed to regional sports networks during the same time increased from none in 1992 to 62 in 1998 and 57 in 1999. Ducey R.T. 10. White Sox games on WGN increased slightly from 48 in 1992 to 51 in 1998 and 53 in 1999, but the majority of White Sox games were carried on regional sports networks in all those years (107 in 1992, 101 in 1998, and 103 in 1999). Ducey R.T. 10.

97. The number of Chicago Bulls basketball games on distant signal WGN declined between 1992 and 1998-1999. Ducey R.T. 11. WGN broadcast 30 Bulls games during the 1991-92 season but only 13 during the 1998-99 season. Ducey R.T. 11.

98. In contrast to cable networks that launched or increased in prominence since 1992 to supply many additional sources of movies, syndicated programming (¶ 89, *supra*), and sports (¶¶ 94-95, *supra*), relatively few cable networks with programming that is facially similar to PTV's programming launched after 1992 (PTV Ex. 2-R).

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[9] ESPN also launched ESPN Classic in May 1995. PTV Ex. 2-R.

III. THE BENEFITS AND VALUE OF DISTANT SIGNAL PROGRAMMING

A. Marketplace Value Should Be Determined in the Context for Which the Distant Signal Programming Is Used – To Attract and Retain Subscribers

99. For purposes of this proceeding, the value of distant signal programming should be assessed from the perspective of the cable operator. Trautman D.T. 1-2; 90-92 Tr. 2543-46 (Wildman); 90-92 Tr. 10743-44, 10749-50, 10799-805 (Scheffman). The marketplace value of distant signal programming should be determined in the context of the purpose for which the buyer of that programming is using it. Tr. 784 (Crandall); 90-92 Tr. 2452-55 (Much); 90-92 Tr. 2581 (Wildman); 90-92 Tr. 10770-77, 10792-805 (Scheffman).

100. The value of distant signal programming, viewed from the perspective of the cable operator, is different from the perspective of advertisers who buy programming time for purposes of advertising. Tr. 7024, 7038 (Carey); 90-92 Tr. 1245-46 (Myhren); 90-92 Tr. 2453-54 (Much); 90-92 Tr. 2587-88 (Wildman). As the 1989 Tribunal stated: "[C]able's goal is to attract and retain subscribers, and will offer 'niche' services, often unrelated to the volume of viewing, to induce segments of the population to subscribe." 57 Fed. Reg. at 15301.

101. Cable operators cannot generate advertising revenue from distant signals. Tr. 1314 (Egan); Tr. 6771 (Green); Tr. 6904 (Carey). Because cable operators must pay for distant signals without the opportunity to derive advertising revenue, the only economic value that distant signals have is to attract or retain subscribers. Tr. 7023-24 (Carey); Ducey R.T. 3; 90-92 Tr. 1925-27, 1929 (Maglio); 90-92 Tr. 2611-12 (Wildman). Measures of the value of particular programming for purposes of generating advertising revenue do not reflect a value that is relevant in the context of distant signal programming. Tr. 7023 (Carey); 90-92 Tr. 10770-74, 10792-805 (Scheffman).

102. Attracting and retaining subscribers and inducing subscribers to purchase additional services are of paramount importance to cable system operators. Gruen D.T. 4. For distant signals, the only relevant measure of programming is the extent to which it contributes to attracting or retaining subscribers. Allen D.T. 4-5; Ducey R.T. 6; Joskow R.T. 6; Wilson D.T. 3. A cable subscriber's decision to subscribe, or to continue subscribing, is "a cumulative one based on the value of all the programming" offered by a cable system. Tr. 7816-17 (Gruen).

103. The value of a distant signal to a cable operator must be assessed in relation to the other programming carried on its system. Tr. 826 (Crandall); Tr. 7069 (Carey). The benefit of distant signal to cable operators is in terms of whether it helps to attract or retain subscribers. Tr. 826 (Crandall); Tr. 7024, 7036-37 (Carey).

104. "To motivate subscriptions, a distant signal must provide unique programming, not available from other sources, that generates a loyal following." Allen D.T. 5. "From the perspective of attracting or retaining subscribers, programming that adds to a subscriber's perception of value or satisfaction with the cable program offerings is best." Ducey R.T. 6.

105. Cable operators do not necessarily seek to maximize the audience for any particular distant signal they carry. Tr. 8006-07 (Gruen). Instead, they seek to maximize a signal's value in terms of attracting and retaining subscribers. Tr. 8006-07 (Gruen).

B. Avidity and Intensity of Interest as Factors Bearing on Whether Programming Attracts and Retains Subscribers

106. Certain kinds of distant signal programming are essentially generic, widely found on local television stations as well as cable networks. Tr. 8137-38 (Thompson); Tr. 6746-47 (Green). This point especially applies to the syndicated series and movies in the Program Suppliers category. Tr. 829, 10241 (Crandall); Tr. 8137 (Thompson). Generic programming may generate advertising revenues and viewing but may not play a particularly important role in attracting and retaining subscribers. Tr. 829-30, 10241 (Crandall).

107. "Avidity" is a measure of the intensity of a subscriber's interest in and preference for particular programs. Ducey R.T. 6; Fuller R.T. 2; Tr. 9774 (Fuller). Viewer avidity or intensity of a viewer's interest in given programming is a significant factor that would cause a household to subscribe to cable. Ducey R.T. 6. Some viewers subscribe to cable only because of their avidity for certain programs on particular channels. Johnson R.T. 9.

108. Certain programs with smaller audiences can be intensely popular with cable subscribers or can generate a high degree of loyalty. Fuller R.T. 3-5; Tr. 10241 (Crandall); 90-92 Tr. 4140 (Sieber). This loyalty or intensity of interest is not necessarily reflected in viewing data. Fuller R.T. 2; Ducey R.T. 6; 90-92 Tr. 4140-41 (Sieber). There is no necessary relationship between the value that viewers attribute to a program and the size of the audience that a program attracts. Fuller R.T. 4-5; 90-92 Tr. 2543 (Wildman).

109. Viewing minutes as measured by Nielsen do not measure viewer avidity, even if divided by the amount of programming available. Fuller R.T. 2; Ducey R.T. 6. The fact that some programming is watched more minutes per quarter hour than other programming does not reflect viewers' intensity of interest in or feelings for the programming. Fuller R.T. 2; Ducey R.T. 6. Much viewing tends to be of programming that a viewer finds least objectionable. Tr. 9790-92 (Fuller). Appointment viewing is the minority of viewing. Tr. 7053 (Carey). The majority of viewers watch television without much intensity or involvement. Tr. 7054-55 (Carey). In fact, the set may be on and they may or may not be paying attention to it. Tr. 7054 (Carey).

110. Syndicators measure viewer approval by methods other than Nielsen numbers, including monitoring web site traffic, letters, telephone calls, attendance at personal appearances and seminars, and surveys. Tr. 6318, 6325-26 (Winkelman); Winkelman D.T. 8. Industry awards for shows also provide a measure of their popularity and quality. Winkelman D.T. 8; Tr. 6315-17 (Winkelman). The same quality and style that win awards are what keep viewers interested and entertained. Tr. 6316 (Winkelman).

111. When viewer response, not tuning, is measured, it becomes clear that avidity does not correlate with Nielsen ratings. Fuller R.T. 3. Programming that generates a

great intensity of interest among its viewers, such as PTV programming, is not necessarily the highest rated programming according to Nielsen. Fuller R.T. 3.

112. "Evaluative" surveys -- evaluative measures other than merely counts of viewing -- tell more about viewer avidity for programming. Fuller R.T. 3. Evaluative surveys measure actual viewer response to shows. Fuller R.T. 3. Attitudinal studies, such as the WTBS study, address the reasons why subscribers are attracted to particular programming. 90-92 Tr. 3767 (Sieber).

113. In a 1987 evaluative survey funded by PBS, the "appeal" of various types of programs was studied, and the types of programs with the lowest appeal (police drama, variety, game shows, fantasy, and comedy) represented the most-watched shows on television. The "impact" of various categories of programming (measured by responses to "I learned something from this program" and "this program touched my feelings") likewise showed that PBS programming had the most impact, while the most-watched types of programs (serials, police drama, game shows, fantasy, and comedy) had the lowest impact. Fuller R.T. 4.

114. Because of strong viewer avidity for PTV programming, it is likely that PTV programming is at least as valuable to cable operators on an average, per-minute basis than the movies and syndicated programming on distant commercial signals. Johnson R.T. 12; Fuller D.T. 8-13, 19-25; Fuller R.T. 2-5; Wilson D.T. 10-25, 29-34.

115. Viewers are intensely interested in some programming and will specifically schedule their viewing of it. Tr. 8146-47 (Thompson). On the other hand, viewers watch many television shows out of habit and they pay less attention to it. Tr. 8146-47 (Thompson). Syndicated shows that are on five or six days a week, in particular, "are not so much 'appointment TV' as habit-forming TV, casually tuned in upon return from work or school, or while preparing dinner or doing homework." Thompson D.T. 7.

116. The availability of specific programming, such as Public Television programming, or the opportunity to view it at different times very well could motivate an avid viewer to subscribe to or remain subscribed to a cable system. Fuller D.T. 21. Syndicated re-runs and old movies, on the other hand, might be what a weary parent turns to at 3 a.m. when rocking her baby, but they are not the types of programming that encouraged her to subscribe to cable in the first place. Fuller D.T. 21.

C. Programming Attributes Valued by Cable Subscribers

117. Superstation WTBS (now cable network channel TBS) in the ordinary course of its business conducted a survey of cable subscribers' preferences and presented the results in the 1990-92 proceeding. Fuller D.T. 19. Robert Sieber, Vice President of Audience Development for Turner Networks, presented the study in the 1990-92 proceeding for the Motion Picture Association of America, Inc. ("MPAA"). Fuller D.T. 19.

118. WTBS employed attitudinal research of cable subscribers in order to understand their motivations. 90-92 Tr. 3733-34, 3767 (Sieber). WTBS wanted to understand what would make more people watch its programming. 90-92 Tr. 3739-40

(Sieber). WTBS made changes in its schedule as a result of the survey. 90-92 Tr. 3740 (Sieber).

119. The study of over 1,200 cable subscribers was intended to measure the appeal of different kinds of programming to cable subscribers and to establish the classes and attributes of programming that are most important to them. Tr. 3341 (Fuller); Fuller D.T. 19. It was also intended to identify gaps between subscribers' preferences and the programming actually being provided by WTBS. Fuller D.T. 19; 90-92 Tr. 3734-35 (Sieber). The survey was not limited to programming on WTBS or to subscribers receiving WTBS. Fuller D.T. 19.

120. The WTBS survey reflects viewers' preferences for various programming types and attributes; it reflects what programming types and attributes appeal to viewers. Fuller D.T. 19; 90-92 Tr. 3734-36 (Sieber). The following table lists the attributes most highly valued by cable subscribers:

1	High quality programs
2	Limited commercial interruptions
3	Programs that the whole family can watch
4	A wide variety of programming
5	Programs that make you think
6	A program line-up that has something for everyone
7	Information through newsbreaks
8	Educational programs for children
9	Have a predictable schedule
10	Programs not available on the broadcast networks ABC, CBS, NBC, and Fox
11	Late night news
12	Show a lot of movies
13	Programs about animals and wildlife
14	Documentary programs
15	Mystery shows
16	Children-oriented programs

Tr. 3346 (Fuller); Fuller D.T. 19-20; PTV Ex. 11.

121. The programming on Public Television fits within the eight top-ranked program attributes in the WTBS cable subscriber survey. Fuller D.T. 19-20; 90-92 Tr. 4162 (Sieber). Public television programming also fits within those attributes rated 10th and 13th through 16th in the survey. Fuller D.T. 20; 90-92 Tr. 4162-63 (Sieber).

122. The WTBS survey reflects a high viewer preference for the types of programming found on Public Television. Fuller D.T. 19; 90-92 Tr. 4162-64 (Sieber); 90-92 Tr. 2246-47 (Ducey). "[These top-ranked attributes] are very familiar to [PBS]. They're largely the attributes that we get high scores for whenever we have done surveys of our own, asking to have our channel rated as well as several competitors." Tr. 3348 (Fuller). These are

programming attributes that would be valued by cable operators, and that cable operators seek to include within their menu of programming alternatives. Tr. 1309-11 (Egan).

123. Studies such as the Sieber study that ask for subscriber impressions and preferences are extremely germane to determining the relative values of distant signal programming because they measure what causes a person to subscribe to cable, which is of primary importance to cable operators. Tr. 3382 (Fuller).

IV. STUDIES AND EMPIRICAL ANALYSES

A. The Nielsen Viewing Studies

124. Through the testimony of Mr. Paul Lindstrom of A.C. Nielsen Company, the Program Suppliers presented surveys of distant signal viewing for each of the two years at issue. Lindstrom D.T. 4-17; PS Exhibits 19-24.

125. Because this proceeding is focused only on distant signal retransmission, MPAA arranged for Nielsen to conduct a "custom" viewing survey. Lindstrom D.T. 4. For 1998, Nielsen selected a random sample of 179 over-the-air broadcast signals from all stations determined to be distantly retransmitted, to represent a cross-section of U.S. television stations. PS Exhibit 19 at 3. For 1999, Nielsen selected 180 stations. Lindstrom D.T. 4-5; PS Exhibit 21 at 3. For each year, the top 50 stations as measured by the number of distant subscribers were included in the sample with certainty, and the remainder of the stations in the sample were chosen randomly. The data were ultimately weighted to reflect the difference in probability of selection. Lindstrom D.T. 5.

126. For purposes of this study, Nielsen measured viewing minutes only in households that subscribe to cable. Tr. 7215-6 (Lindstrom); Lindstrom D.T. 5. Further, Nielsen measured viewing of the stations in its 1998 and 1999 samples only in counties that were determined not to be local relative to each station. Lindstrom D.T. 5. Thus, the objective of the study was to measure distant signal viewing for over-the-air broadcast signals retransmitted by cable systems during the years at issue. Tr. 7216.

127. Nielsen's data was collected using People Meters. Lindstrom D.T. 4. In contrast to a diary methodology, which requires survey respondents to fill out a diary of their viewing, the People Meter is based on a device attached to the television set that automatically records the time that the set is turned on (or off) and the channel to which the set is tuned. Tr. 7191 (Lindstrom).

128. A People Meter is placed on each television in a household sampled by Nielsen. Lindstrom D.T. 4. Each member of the sample household is identified by name on the People Meter and assigned a personal viewing button, and there are additional buttons for visitors. Lindstrom D.T. 4. Each member of the household must indicate when they begin and end viewing by pushing their button. Lindstrom D.T. 4. The People Meter also will prompt a response to ensure that people are watching a television. Tr. 7329-30 (Lindstrom). The People Meter methodology thus collects demographic information on the identities of the people watching the television. Lindstrom D.T. 3.

129. People Meters purport to measure actual viewing by persons rather than tuning, which refers to a television being turned on whether or not it is being viewed. Donato D.T. 4. Approximately three to five percent of the time, a television will be turned on, but no one will be watching it. Donato D.T. 4. People Meters record household tuning separately from person-by-person viewing, and the Nielsen study separately reports household viewing data. Donato D.T. 4; PS Exhibits 20, 22.

130. Nielsen allocates viewing minutes for commercials to the program within which those commercials appear. Tr. 7402 (Lindstrom). The Nielsen study is based on viewing minutes by category, and does not differentiate between viewing (or tuning) at different hours of the day. Donato D.T. 12-13.

131. The People Meter data provide information only on the times that a television is on and the channel to which it is tuned. Tr. 7188 (Lindstrom). A further step must be taken to attribute that tuning information to particular programs. Tr. 7213-15 (Lindstrom). This requires Nielsen to integrate the tuning data with information on the program schedules for each over-the-air broadcast signal included in the survey. Tr. 7216 (Lindstrom). Nielsen relies on information supplied by broadcast stations in order to determine their programming schedule. Lindstrom D.T. 5.

132. The Nielsen study further requires an assignment of each program to one of the Phase I categories at issue in this proceeding. Kessler D.T. 24-25. The allocation of particular programs to the Phase I categories is undertaken by Nielsen with oversight by the Program Suppliers. Tr. 6425 (Kessler). The categories were (1) local programs (Commercial Broadcasters' programs), (2) series and movies (Program Suppliers' programs), (3) Devotional (Devotional Claimants' programs), (4) noncommercial (PTV's programs), (5) live sports (Joint Sports Claimants' programs), and (6) other. Kessler D.T. 25. The Nielsen studies did not measure results for the Canadian Claimants, the Music Claimants, or NPR. Kessler D.T. 25.

133. Nielsen's studies for this proceeding present data collected through its National People Meter service, which collects data from a sample of over 5,000 households nationally. Donato D.T. 3, 5-7.

134. Nielsen did not measure viewing of network programming on stations affiliated with ABC, CBS, and NBC. Tr. 9487-88 (Kessler). Nielsen also did not measure viewing of programming on superstation WGN that appeared on its satellite feed but not its local feed. Lindstrom D.T. 15; Tr. 6564-66, 9487-88 (Kessler).

1. The Nielsen viewing results

135. For each of 1998 and 1999, Nielsen presented viewing data for each program category for total households and for age demographics 2+, 2-17, 18-34, 35-49, and 50+. PS Exhibits 20, 22. Nielsen provided viewing data separately for total year and for sweeps months (February, May, July, and November) for each of the demographic groups. PS Exhibits 20, 22. Nielsen also provided the same viewing data by quintiles among heavy,

medium-heavy, medium, medium light, light viewers. Lindstrom D.T. 14-15; PS Exhibits 20, 22.

136. The full-year data include the data from the sweeps periods. Tr. 7228 (Lindstrom). Thus, there would be no reason to average the two sets of data. Tr. 7228 (Lindstrom).

137. The following table provides the results of the Nielsen viewing studies for the various claimant groups for household viewing and 2+ viewing.

Table 1 -- Nielsen Viewing Shares
(Full Year Data)

	HOUSEHOLDS		VIEWERS 2+	
	1998 Share	1999 Share	1998 Share	1999 Share
PTV	16.9	15.1	16.5	16.8
Program Suppliers	58.9	61.0	59.1	59.5
Sports	9.0	7.9	9.4	8.1
Local	14.4	15.0	14.4	14.8
Devotional	0.7	0.9	0.5	0.8
Other	0.1	0.1	0.1	0.1
TOTAL	100	100	100	100.1

PS Exs. 20, 22.

138. Aside from the viewing shares and minutes reported in the Nielsen study, Nielsen also provided information showing the quarter hours of programming for each category included in the study. Tr. 7351 (Lindstrom); PS Exs. 20, 22. The quarter hours reflect the volume of programming, for each category, found on the 179 or 180 television signals included in the Nielsen study for the particular year. Tr. 7352 (Lindstrom); Tr. 7826-27, 7853-54 (Gruen). The quarter hours do not reflect how widely or narrowly those stations were retransmitted as distant signals. Tr. 7352-56, 7409-10 (Lindstrom). Thus, for any particular category, the viewing minutes and viewing share reflected in the Nielsen study could be heavily affected by the extent to which particular television stations are carried as distant signals, but the quarter hour figures do not change whether a particular station is carried nationwide as a distant signal or only by a few cable systems. Tr. 7409 (Lindstrom); Tr. 7882-89 (Gruen).

2. Changes from 1990-92 in the Nielsen viewing shares

139. In the 1990-92 cable royalty proceeding, the Program Suppliers presented a Nielsen study based on a comparable approach to the Nielsen study submitted in this proceeding. Tr. 7249-50 (Lindstrom). Unlike this proceeding, however, the 1990-92 Nielsen study presented only household viewing data (and for 1990 only sweeps data were provided). Tr. 7363 (Lindstrom); PTV Ex. 20-X.

140. The following table compares the viewing shares from the Nielsen study for 1991 and 1992 (full year data) versus the household viewing shares reported by Nielsen in this proceeding:

Table 2 -- Nielsen Viewing Shares 1991-92 and 1998-99

	1991 Full Year	1992 Full Year	1998-99 Full Year
PTV	2	4	16.0
Program Suppliers	83	80	60.0
Sports	7	7	8.5
Local	7	8	14.7
Devotional	-	1	0.8
Other	-	-	0.1
TOTAL	99	100	100.1

90-92 Lindstrom D.T. 12 (rev.), 14 (rev.); PS Exs. 20, 22.

141. As noted, the 1990 data from the earlier Nielsen study were for sweeps periods only (four months of data). The following table compares those 1990 viewing shares against the shares reported for the sweeps periods in the Nielsen study in this proceeding:

Table 3 -- Nielsen Viewing Shares 1990 and 1998-99

	1990 Sweeps	1998-99 Sweeps
PTV	4	15.7
Program Suppliers	83	62.4
Sports	6	7.3
Local	7	14.0
Devotional	1	0.8
Other	-	-
TOTAL	101	100.2

90-92 Lindstrom D.T. 10; PS Exs. 20, 22.

B. The Bortz Cable Operator Survey

1. Overview

142. On behalf of the Joint Sports Claimants ("JSC"), Mr. James Trautman, Managing Director of Bortz Media & Sports Group, Inc., presented the results of surveys of cable operators conducted for each of the years 1998 and 1999. Trautman D.T. 7-13.[10] Bortz Media & Sports Group[11] is a consultant to the broadcasting and cable television industry. During the past 17 years, the JSC have retained Bortz Media and Sports Group "to establish and implement a methodology for determining how [compulsory licensing] royalties would be allocated among different groups of copyright owners in [an open market absent compulsory licensing]." Trautman D.T. 1.

143. Bortz surveyed only Form 3 cable systems, which accounted for over 95 percent of the cable royalty payments in 1998 and 1999. Trautman D.T. 8, 35-36. Bortz used a "stratified" random sampling approach to select the systems to be surveyed, with the stratification based on copyright royalty payments (*i.e.*, cable operators who paid the greatest amount of royalties had the greatest likelihood of being included in the sample). Trautman D.T. 8, 46-48.

144. Bortz did not survey cable systems for which the only distant signal was a PTV signal or a Canadian signal because those signals carry one type of distant signal programming. Tr. 460-61 (Trautman); Trautman D.T. 36-37. Bortz did not survey cable systems that carried no distant signals. Trautman D.T. 36. For 1998, if a cable system had listed WTBS as a distant signal on its Statement of Account filed with the Copyright Office, it was not included in the survey if WTBS was the only distant signal the station listed. Trautman D.T. 38.

145. Bortz retained Creative & Response Research, a cable industry market research firm, to conduct the telephone surveys in both 1998 and 1999. Trautman D.T. 9. The survey for 1998 was conducted during a six-month period from April 26, 1999 through October 4, 1999, and the survey for 1999 was conducted during a two-month period from June 10, 2000 through August 7, 2000. Trautman D.T. 49.

146. The Bortz survey respondents were individuals in senior management positions at the respective cable systems included in the survey. Trautman D.T. 9, 50-51. In the 1998 and 1999 Bortz surveys, the initial question screened potential respondents for their involvement in making decisions related to the carriage of distant signals by asking them if

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10 Mr. Trautman presented the results and analysis of the Bortz surveys in a report titled "Cable Operator Valuation of Distant Signal Non-Network Programming," which JSC submitted as JSC Exhibit No. 1; for ease of reference, specific pages of the report are referred to by number as if they were part of Mr. Trautman's written direct testimony.

11 Bortz Media & Sports Group, Inc. operated under the name Bortz & Company prior to January 1998. Trautman D.T. 1.

they were the person "most responsible for programming decisions" during the year of the survey. Trautman D. T. 9, 50, App. B. The survey respondents primarily were cable system general managers, marketing directors/managers, and programming directors/managers. Trautman D.T. 9, 51.

147. The Bortz survey asked cable operators to allocate the relative value of the program categories on the distant signals that they carried during the survey year. Trautman D.T. 9-10. This was done through a "constant sum" question (Question 4 of the survey), in which cable operators were asked to allocate a "fixed dollar amount" representing a "programming budget" among the program categories at issue in this proceeding, based on the "relative value" of that programming to the cable system "in terms of attracting and retaining subscribers." Trautman D.T. 9-10, 44, App. B.

148. "[T]he survey does not attempt to measure actual conduct other than conduct and experience that is reflected in the estimations provided by the survey respondents. Because the compulsory license system obviates arms-length negotiations for distant signal programming, the actual conduct never happens and accordingly cannot be surveyed." Crandall D.T. 10.

149. The Bortz study does not by its method confine the answers to what cable operators actually carried and instead is asking for a "dominant impression" that is tied only loosely to what was actually carried. Tr. 581, 10315-21 (Trautman).

150. When asked to estimate relative value, the survey respondents were told to exclude "any national network programming from ABC, CBS and NBC." Tr. 580-81 (Trautman); Trautman D.T. App. B. In cases where the system reported WTBS as a distant signal on its 1998 Statement of Account, the survey respondents "were not asked to value the programming on WTBS." Trautman D.T. 38. The survey respondents who carried a distant WGN signal were <u>not</u> told to exclude programming on that signal that had been substituted for programming broadcast locally on WGN in Chicago. Tr. 521-27 (Trautman); *see* ¶ 51, *supra*.

151. The survey respondents were asked to allocate a relative value to public television programming only if they carried a public television distant signal during the survey year. Trautman D.T. 36; Tr. 401 (Trautman). Similarly, only those survey respondents that carried a Canadian distant signal during the survey year were asked to allocate a relative value to Canadian programming. Trautman D.T. 36; Tr. 409 (Trautman). If the cable operator did not actually carry a PTV or Canadian distant signal, those categories were automatically assigned a zero value. Trautman D.T. 36.

152. The results reported in the Bortz survey for the public television and Canadian categories thus reflect a weighted average of the responses given by those operators that carried a public television or Canadian distant signal during the survey year, and the zero values that were assigned to those respondents that did not carry such signals during the survey year. Tr. 413 (Trautman). No other programming categories aside from public television and Canadian programming were assigned automatic zero values under the survey methodology. Tr. 402-05, 424, 438-39 (Trautman).

153. The Bortz survey did not attempt to distinguish between cable operators' relative value of programming on Basic signals as compared to 3.75 signals. Tr. 535-36 (Trautman). Cable operators were not asked to place a value on any particular royalty fund; indeed, royalty funds were not mentioned at all in the survey. Tr. 535-36 (Trautman).

154. For the years 1998 and 1999, the response rates to Question 4 (the allocation of relative value) were 57 percent and 67 percent, respectively. Trautman D.T. 9, 49-50.

155. Mr. Trautman testified that the constant sum approach allows cable operators to place relative values on different program types. Trautman D.T. 7. Mr. Trautman testified that "[t]he constant sum approach . . . is a well-recognized market research tool that is used in a variety of contexts when a comparative value measure is being sought." Trautman D.T. 7.

156. For 1998 and 1999, the responses to Question 4 of the Bortz surveys (the relative allocations of value across distant signal program categories) are set forth in the following table -- before any adjustments are made to take account of the various biases identified by Drs. Fairley and Johnson and discussed in the next section.

Table 4 -- Bortz Results of Relative Valuation of Programming

Programming Type	1998	1999
Live Sports	37.0 (34.3-39.7)	38.8 (35.8-41.8)
Movies	21.9 (20.3-23.5)	22.0 (20.0-24.0)
Syndicated Programming	17.8 (16.2-19.4)	15.8 (14.2-17.4)
News and Public Affairs	14.8 (13.0-16.6)	14.7 (12.5-16.9)
Devotional	5.3 (4.5-6.1)	5.7 (4.6-6.8)
PTV	2.9 (1.9-3.9)	2.9 (1.6-4.2)
Canadian	0.4 (0.0-0.9)	0.2 (0.0-0.4)

JSC Table II-1, Trautman D.T. 11. Confidence intervals, in percentage points, are indicated in parentheses.[12]

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12 The confidence intervals are stated at the 95% level of confidence. The source is Trautman D.T. 54-55.

157. Aside from allocating relative values among the different program categories, the survey respondents were also asked to identify the categories of programming that they considered "most popular" with their subscribers and to identify the program categories that were most and least important "to feature in subscriber acquisition and retention advertising and promotion." Trautman D.T. 9, App. B.

158. The following table sets forth the responses as to the categories of programming considered "most popular" with subscribers (Question 2b in the survey). [13]

Table 5 -- Bortz "Most Popular" Programming

Programming Type	1998	1999
Live Sports	88.1	71.9
News and Public Affairs	18.5	26.5
Syndicated Programming	24.1	16.3
Movies	5.4	14.0
PTV	9.1	11.9
Canadian	0.2	0.6
Devotional	0.8	0.3
Other	14.1	3.5

JSC Table II-2, Trautman D.T. 13.

159. The following table sets forth the responses as to the categories of programming that cable operators used for purposes of advertising and promotion (Question 3d in the survey).[14]

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[13] By the nature of this question, the responses do not add to 100% since cable operators were permitted to identify more than one category of programming that was "most popular." Trautman D.T. 13.

[14] Given rounding, the responses do not add to 100%. Trautman D.T. 16.

Table 6 -- Bortz Programming Most Important for Advertising and Promotion

Programming Type	1998	1999
Live Sports	84.8	75.3
PTV	0.0	14.9
Movies	7.8	5.0
News and Public Affairs	1.2	1.5
Syndicated Programming	6.2	0.0
Devotional	0.0	0.0
Canadian	0.0	0.0
Other	0.0	3.4

JSC Table II-5, Trautman D.T. 16.

2. Biases in the Bortz survey as conducted in 1998-1999

160. Dr. William B. Fairley, a statistician, and Dr. Johnson, an economist, both testified that the Bortz survey is biased against Public Television in a number of respects. Each of these biases is discussed below.

161. The biases against PTV in the 1998-99 Bortz survey primarily arise from the fact that PTV programming is not treated consistently with other program categories in the survey. If a cable operator carried only a PTV distant signal, and no commercial distant signals, it was dropped from the survey. If, on the other hand, a cable operator carried one or more commercial signals but no PTV signal, PTV was automatically assigned a "zero" value under the survey methodology. Also, the shares for the Program Suppliers category (syndicated series and movies) were systematically inflated because the Bortz survey allowed cable operators to place a value on non-compensable programming on superstation WGN. Fairley R.T. 3-4.

(a) Assignment of "automatic zeroes" to the PTV category

162. Under the Bortz methodology, PTV was automatically assigned a "zero" value for any cable operator that did not carry a PTV distant signal during the survey year. Fairley R.T. 3-4, 6-7; Tr. 401-02 (Trautman). In contrast, whenever a cable operator carried any commercial distant signal, it was asked about all categories of non-network commercial programming. Fairley R.T. 3-4, 6-7; Tr. 402-05, 424, 438-39 (Trautman). The survey methodology does not verify that in fact the distant signals carried by that cable operator actually included all of those program categories. Tr. 439-42, 10321 (Trautman). Thus, unlike for PTV, a cable operator might provide a "value" for a commercial program category that it did not carry, Fairley R.T. 3-4, 6-7, or a disproportional value for a commercial category carried only minimally on its distant signals in the survey year. Tr. 10318-19, 10333-34 (Trautman).

163. For example, in the 1998 Bortz survey, cable system number 3 (see PTV Exhibit 5-X) carried only one distant signal, the ABC affiliate WSB (Atlanta). Only a single

live professional or college sports team (non-network) telecast was broadcast on WSB during that year -- a Sunday night NFL game that was simultaneously televised nationally on ESPN and thus would have been duplicated on the system of any cable operator carrying both ESPN and WSB. Nonetheless, the cable operator in the Bortz survey assigned a value of 35 percent to sports programming. Fairley R.T. 7; Tr. 10319-20 (Trautman). Mr. Trautman conceded that under those circumstances such a valuation "would suggest that the respondent might have been including something else" in his response other than the sports programming actually carried on that distant signal. Tr. 442-47, 456-58, 10333-34 (Trautman).

164. Similarly, in the 1999 survey year, one respondent gave a 15 percent valuation to sports even though it had carried no sports programming in that year on distant signals. Trautman Supplemental Declaration (submitted Aug. 15, 2003).

165. These examples reflect a broader point that the Bortz survey results cannot be tied precisely to what the cable operator actually carried as programming on particular distant signals in the survey year. As Mr. Trautman noted, the survey seeks only a "dominant impression" of particular program categories that necessarily are tied only loosely to what the cable operator actually carried on specific distant signals. Tr. 581, 10315-21 (Trautman). The conclusion that the Bortz survey cannot be directly tied to actual signals carried finds further confirmation in the fact that the survey was conducted many months after the years surveyed,[15] so that it is not plausible to expect that cable operators would in fact have a specific memory of the programming they actually carried on particular distant signals. Fairley R.T. 7; Tr. 10314-19 (Trautman).

166. In addition to the situation (such as the example in 1999 described in Mr. Trautman's supplemental declaration) where the cable operator gave a response for a program category it did not carry at all on its distant signals, this issue also applies in the circumstance where the cable operator gives a value (and is permitted to give a value) that is substantially lower or higher than the amount and value of the programming actually carried on particular distant signals. In either case, the point is that the Bortz survey results are not tied specifically to what was actually carried. The methodology does not allow for precise valuation confined only to what was actually carried. Fairley R.T. 3-4, 6-7; Tr. 10315-21 (Trautman).

167. The "automatic zero" methodology has another distorting effect in relation to PTV: because cable operators can only obtain PTV programming by importing an entire distant signal, they make a choice that is subject to the "threshold effects" that capacity constraints and opportunity costs might lead a cable operator not to carry a PTV distant signal even if it would place a positive value on PTV programming if asked. Fairley R.T. 8; Tr. 425-29 (Trautman). In contrast, a cable operator that carries one or more commercial distant signals must take those signals as it finds them, without altering the mix of programming, and it therefore exercises no choice about whether it wishes in fact to carry a particular category of programming as part of the commercial distant signal. Fairley R.T. 8. Given this core

15 The 1998 survey was conducted between April 26 and October 4, 1999, while the 1999 survey was conducted between June 10 and August 7, 2000. Trautman D.T. 49.

difference, the Bortz survey results as to PTV are biased by a "threshold effect" that is not applied to any other category. Fairley R.T. 8-9.

168. The Copyright Royalty Tribunal recognized this biasing effect in its 1989 cable royalty determination. "The lack of opportunity for those cable systems that did not carry a distant PBS signal [to provide a valuation for PTV in the Bortz survey] was another flaw. As we said in the 1983 decision, the fact that a cable system did not carry a PBS signal only meant that the actual price was too high. There could have been some lesser price they were willing to spend. Therefore, Bortz practice to accord PBS an automatic zero underrepresented PBS." 1989 Cable Royalty Distribution Order, 57 Fed. Reg. 15286, 15299 (Apr. 27, 1992). *See also* 1983 Cable Royalty Distribution Order, 51 Fed. Reg. 12792, 12809 (Apr. 15, 1986) ("We believe that NAB's practice to automatically accord PBS a zero valuation when the system did not, [in] fact, carry a PBS distant signal in 1983 was improper. We believe this mixes 'attitude' with 'behavior.'"); *id.* at 12810 (applying same critique to JSC's Bortz survey). The 1990-92 CARP noted that the Tribunal had "addressed the subject explicitly in both its 1983 and 1989 determinations" and thus decided to "adhere to that Tribunal's allowance of the adjustment" for automatic zeroes though it was "trouble[d]" by the issue. 1990-92 CARP Op. 123-24.

169. Where cable operators were actually asked to value PTV, the average share for PTV was 12.9 percent in 1998-99 combined (12.0 percent in 1998 and 14.1 percent in 1999). PTV's share drops to a share of 3.1 percent (unweighted) only when the 205 respondents who were not asked about PTV's share are automatically assumed to value PTV at zero.[16] Fairley R.T. 9-10; PTV Exs. 4-R, 5-R.

170. Many systems that carried a PTV distant signal allocated 15 percent, 20 percent or more than 20 percent of their programming value to the PTV signal -- and might have allocated as much as 100 percent had the PTV-only operators (discussed in ¶¶ 173-178, *infra*) been interviewed. Fairley R.T. 10. Cable operators that carried a PTV distant signal placed a relatively high value on it, even though most respondents in the survey were not asked to provide a relative valuation for PTV programming. Fairley R.T. 10-11.

171. Evidence was presented with respect to earlier surveys of cable operators conducted by Bortz and its predecessor organizations in connection with prior cable royalty distribution proceedings. Trautman D.T. 26; Tr. 430-32 (Trautman). For the 1979 and 1980 surveys, in which all respondents were asked to value PTV regardless of whether they carried it or not, the PTV share was considerably higher than in later years when respondents were not asked unless they carried a PTV distant signal. Fairley R.T. 11-12.

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16 Dr. Fairley used unweighted shares for simplicity's sake. Technically, the Bortz study does not rely on a straight average of the survey responses but is instead a "stratified ratio estimator" of the true average shares reported by the survey respondents. See Trautman D.T. 46-48, 51-57. Because average shares do not differ much by royalty, use of royalty-weighted shares and stratified sample formulas makes an insubstantial difference. Fairley R.T. 9 n.6; Tr. 411-12 (Trautman); Tr. 10621-27 (Fairley).

172. While an automatic zero was applied to PTV when it was not carried, no automatic zero was applied to commercial program categories that were not carried when a PTV distant signal was carried. Fairley R.T. 20. Instead, and as discussed in the following section, cable systems that carried only a PTV distant signal were excluded from the Bortz survey entirely.

(b) Elimination of systems that carry only PTV as distant signal

173. The Bortz survey is also biased in its treatment of systems that carry only PTV as a distant signal. Fairley R.T. 12. If a cable system only carried PTV as a distant signal, it was removed from the Bortz sample. Tr. 460-61 (Trautman). On the other hand, if the system carried only one or more commercial distant signals, and no PTV distant signals, it was included in the Bortz survey and PTV was automatically assigned a zero, as discussed above. While this is not a new element of the Bortz methodology, the 1998-99 survey is the first time that it has had any practical effect, with cable systems actually being excluded because they carried only PTV distant signals. Fairley R.T. 3, 12-13; Johnson R.T. 18-19; Tr. 477-79 (Trautman).

174. The result of this bias in the Bortz methodology is a systematic exclusion of the category of cable operators that would be expected to give the highest relative value to a PTV distant signal. Fairley R.T. 3, 13; Johnson R.T. 18-19; Tr. 10299-300 (Trautman).

175. If a cable operator carries a PTV signal as its only distant signal, a consistent application of the Bortz methodology would necessarily mean that all other categories should be automatically assigned zeroes and PTV should be assigned a share of 100 percent relative valuation. Johnson R.T. 19. An allocation of 100/0 is as legitimate as a 60/40 allocation, or a 30/70 allocation, or a 0/100 allocation. Johnson R.T. 19.

176. In 1998, there were 12 PTV-only systems in the Bortz sample, all of which were removed from the survey. In 1999, 8 PTV-only systems were removed from the survey. Fairley R.T. 15; Trautman D.T. 48 (note to Table A-1). These systems were not small or insignificant; they paid more in royalties than the average of all Form III systems from which Bortz sampled in 1998 and 1999. Fairley R.T. 15-16.

177. Given the response rates to the Bortz survey in 1998-99, it would be reasonable to expect that at least 12 PTV-only systems would have responded to the survey for those years and should have been included in the results. Fairley R.T. 15-17.

178. If the Bortz numbers are to be used in determining PTV's share, they must be adjusted to account for the distortions created by excluding systems that carry PTV as their only distant signal. Johnson R.T. 19; Fairley R.T. 13-14. Mr. Trautman conceded that an adjustment was needed in the Bortz results to take account of the PTV-only systems that had been excluded from the sample. Tr. 464 (Trautman).

(c) Treatment of non-compensable WGN programming

179. The Bortz survey is flawed by another feature of the survey methodology that is not specifically directed toward PTV but rather has the effect of inflating the Program Suppliers' share at the expense of all other categories. This arises from the treatment of WGN programming in the Bortz survey. Fairley R.T. 17.

180. More than half of the programming on distant signal WGN was non-compensable movies and syndicated series substituted for the programming originally broadcast locally on WGN in Chicago. Fairley R.T. 18; Ducey R.T. 8; *see also* ¶ 51, *supra.*

181. Cable managers responding to the Bortz survey were not made aware of these substitutions, nor were they instructed to exclude this non-compensable programming from their responses when asked about the value of WGN as a distant signal. Tr. 521-27 (Trautman). Michael Egan, a cable operator, testified that respondents to the Bortz survey would not make any distinction between compensable and non-compensable programming on distant signal WGN -- "It's just WGN to me." Tr. 1339-41 (Egan). For the same reasons that the survey excluded non-compensable network programming from cable operators' valuations of network distant signals, the responses should not have included valuations of non-compensable programming on WGN. Fairley R.T. 18; Johnson R.T. 17-18. The need for this adjustment is particularly acute given that the non-compensable programming was on WGN, by far the most widely carried distant signal in 1998-99. Fairley R.T. 18.

3. The Fairley adjustments

182. Dr. William B. Fairley, a statistician testifying on behalf of the Public Television Claimants, used accepted statistical techniques to correct for the major biases discussed above and to adjust the shares of all claimants to better reflect the true relative value of the program categories. Fairley R.T. 20-51. He applied three alternative methodologies to adjust for these biases in the Bortz results, identified as Methods 1, 2, and 3. Fairley R.T. 20-21, 27-51. Dr. Fairley also calculated a "benchmark" value for the PTV share that provided a check on the results of his three methods and corroborated the adjusted results for PTV. Fairley R.T. 21-27.

183. Dr. Fairley concluded that, properly adjusted, the Bortz survey would yield a value share for Public Television in the range of 8.5 to 13.9 percent of the Basic Fund, with corresponding adjustments to the shares of the other claimant groups. Fairley R.T. 5, 51; Tr. 9968, 10034 (Fairley).

184. In Method 1, Dr. Fairley used a regression analysis to estimate the Bortz share results based on the responses to the preliminary Bortz survey questions as to program categories that are "most popular" with subscribers and "most often used" in advertising. He then adjusted those results for the WGN bias discussed above. Fairley R.T. 27-33; PTV Ex. 8-R. Method 1 is described more fully in ¶¶ 189-194, *infra.*

185. In Method 2, Dr. Fairley adjusted for the "automatic zero" bias by estimating the missing values that would have been assigned to PTV by cable operators had they been asked. He also adjusted for the WGN bias and the fact that systems carrying only

PTV or Canadian distant signals were excluded from the analysis. Fairley R.T. 33-43; PTV Ex. 9-R. Method 2 is described more fully in ¶¶ 195-205, *infra*.

186. In Method 3, Dr. Fairley did not estimate any missing values, but rather applied zero values to all commercial categories when they were not or would not have been carried, just as PTV was assigned an "automatic zero" when it was not carried. He also adjusted for the WGN bias and the fact that systems carrying only PTV or Canadian distant signals were excluded from the analysis. Fairley R.T. 43-50; PTV Ex. 10-R. Method 3 is described more fully in ¶¶ 206-216, *infra*.

187. The incremental impact of each of Dr. Fairley's various adjustments to the Bortz shares for each of his three methods is tabulated in PTV Exhibits 8-R, 9-R, and 10-R, as described at Tr. 10378-408, 10598-602 (Fairley).

188. In the 1990-92 cable royalty distribution proceeding, Dr. Fairley presented adjustments to the Bortz survey results based solely on a method very similar to Method 2. Tr. 9964 (Fairley). Methods 1 and 3 are alternative, stand-alone methods that are new to this proceeding and were developed in part to respond to concerns raised by the CARP in the 1990-92 proceeding and by opposing claimants here. Tr. 9964-66, 10409-10 (Fairley). Neither Method 1 nor Method 3 require the estimation of values for signals or program categories not actually carried. Thus, neither Method 1 nor Method 3 presents the concerns raised by the 1990-92 CARP about whether it is appropriate to adjust the Bortz results for distant signals not actually carried.[17]

(a) Method 1

189. Dr. Fairley's "Method 1" provides an estimate of the Bortz share results based on the responses to the preliminary Bortz survey questions asking cable operators to identify the program categories on distant signals that were "most popular" with subscribers and "most often used" in advertising. Fairley R.T. 27-33.

190. After establishing that there was a substantial correlation between the responses to these preliminary questions and the ultimate shares question, Dr. Fairley fitted a regression line to the data from the preliminary questions and used the results from that regression to predict an adjusted Bortz share for all the categories that corrected for the overvaluation of Devotional and the undervaluation of PTV in the Bortz methodology. Fairley R.T. 27-33.

191. Method 1 also incorporated adjustments to take account of the non-compensable programming on WGN and the fact that PTV only participates in the Basic Fund. Fairley R.T. 32, 58.

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[17] Further, as discussed below under Method 2, and as reflected in the prior decisions of the Copyright Royalty Tribunal quoted above in ¶ 168, the 1990-92 CARP's reservations about the logic of the automatic zero correction are not well-founded.

192. The final adjusted share estimates under Method 1 are set forth in the following table:

Table 7 – Final Share Estimates under Method 1
After Adjustment to Reflect Basic Fund

	Movies	Sports	Synd	News	PTV	Devotional	Canadian	Sum
1998	7.15	44.41	13.16	17.93	13.85	3.50	0.00	100.0
1999	10.07	40.44	9.46	23.61	13.94	2.48	0.00	100.0
Combined	8.68	42.42	11.27	20.76	13.88	2.99	0.00	100.0

Fairley R.T. 32-33.[18]

193. The PTV estimated share is conservative in that Dr. Fairley did not include in his Method 1 analysis those cable systems whose only distant signal was PTV and who would have presumably mentioned PTV in answer to the preliminary questions. Tr. 10416-18, 10428 (Fairley).

194. Dr. Fairley testified that he believed the Panel should use the results of Method 1 (along with those of Method 3) in making its final award determinations. Tr. 10018-27, 10619 (Fairley). Unlike the methodology used by Dr. Fairley in connection with the 1990-92 cable royalty distribution proceeding, Method 1 does not require the estimation of values for signals or program categories not actually carried.

(b) Method 2

195. Dr. Fairley's "Method 2" adjusted for the "automatic zero" bias by estimating the missing values that would be assigned to PTV by cable operators had they been asked. Fairley R.T. 33-43. The objective of Method 2 was to place PTV on a level playing field with the other program categories. Fairley R.T. 20.

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18 Determining the corresponding shares of the 3.75 Fund under this or Dr. Fairley's other methods involves a simple algebraic calculation, in which PTV's Basic Fund share is subtracted from the pool, and then the remaining shares are normalized on a proportional basis. Shares of the 3.75 Fund under Method 1 for 1998-99 combined are:

Movies	Sports	Syndicated	News	Devotional	Canadian
10.07	49.26	13.09	24.11	3.46	0.00

196. Estimating missing or incomplete values is standard statistical practice. Fairley R.T. 33-34; Tr. 9917-19 (Fairley).

197. The premise of Method 2 was that cable operators would not carry a distant PTV signal unless the value of that signal exceeded a certain "threshold." Fairley R.T. 34. This "threshold effect" was reflected in the pattern of Bortz survey responses, as well as the fact that cable operators must bring in distant PTV signals in discrete units that could readily give rise to such a threshold effect. Fairley R.T. 8-9, 34-40. Based upon this threshold effect, Dr. Fairley estimated the unobserved share values from the observed share values for those cable systems that did in fact carry a distant PTV signal during the survey year. Fairley R.T. 34-40.

198. Missing values were estimated not only for PTV, but for commercial categories as well when PTV was the only distant signal carried. Fairley R.T. 61; Tr. 9903-05, 10420-21 (Fairley). Dr. Fairley estimated the missing share values for each claimant category and then averaged those values with the reported share values for that category. Fairley R.T. 40.

199. The CARP in the 1990-92 proceeding, while adjusting the PTV share upward, expressed concern that estimating the value of PTV programming that was not carried would require an expanded (and virtually impossible) analysis in which the value of programming on all other signals that were not carried would have to be estimated as well. *See* 90-92 CARP Op. 123-24. But the Bortz survey already obtains valuations for all other program categories carried on commercial signals, regardless of whether those categories actually appear on the signal or whether those particular categories of programming in fact exceeded the cable operators' "threshold" for carrying them. Fairley R.T. 35; Tr. 10418-20 (Fairley). It is only the PTV (and Canadian) categories that are assigned an automatic zero if their values fall below the system's threshold for carriage. Fairley R.T. 35; Tr. 10418-20 (Fairley).

200. Dr. Fairley's objective was to estimate the values of program categories -- not the values of particular signals. Tr. 10418-19 (Fairley). The number of distant PTV or commercial signals carried or not carried by a given cable operator was irrelevant to his analysis. Tr. 10418-20 (Fairley). In other words, as he explained, since the purpose of the proceeding is to estimate the relative valuation of different program categories (and not the value of discrete distant signals), the bias corrected for is the exclusion of a category of programming from the survey responses. That correction would not logically lead to the estimation of values for other, non-carried commercial distant signals because every cable operator is in fact requested to provide a value for all commercial categories. Tr. 10418-20 (Fairley); Fairley R.T. 35.

201. Method 2 also incorporated adjustments to take account of the non-compensable programming on WGN, the exclusion of PTV-only and Canadian-only systems, and the fact that PTV only participates in the Basic Fund. Fairley R.T. 60-64.

202. The final adjusted share estimates under Method 2 are set forth in the following table:

**Table 8 -- Final Share Estimates Under Method 2
After Adjustment to Percentage of Basic Fund**

	Movies	Sports	Synd	News	PTV	Devotional	Canadian	Sum
1998	14.85	39.00	12.05	16.80	9.01	5.88	2.41	100
1999	15.10	41.48	10.74	15.98	7.96	6.84	1.89	100
Combined 1998-99	14.98	40.19	11.42	16.40	8.51	6.34	2.15	100

Fairley R.T. 41-42.[19]

203. Dr. Fairley compared the results from Method 2 with those from Method 1 and found a substantial correlation of the estimated shares under both methods. Fairley R.T. 42-43.

204. Dr. Fairley testified that there was a "downward bias" in Method 2 and that PTV's true share should be higher (between 9.0 and 13.9). Tr. 10034-35 (Fairley). While Dr. Fairley expressed a preference for Methods 1 and 3, he testified that Method 2 "is a whole lot better than just using Bortz alone [and] improves on Bortz." Tr. 10619 (Fairley). Reflecting this point, an adjustment for the assignment of automatic zeroes was in fact accepted in the last three cable royalty distribution proceedings -- the 1983 and 1989 decisions of the Copyright Royalty Tribunal and the 1990-92 CARP determination. *See* ¶ 168, *supra*.

205. Method 2, both in its current form and as used by Dr. Fairley in the 1990-92 proceeding, has been criticized for estimating missing values for PTV in situations where PTV was not actually carried as a distant signal. *See, e.g.,* Trautman D.T. 36; Tr. 10311-14 (Trautman). This criticism is not justified because:

- The Bortz study does not by its method confine the answers to what cable operators actually carried and instead is asking for a "dominant impression" that is tied only loosely to what was actually carried. Tr. 581, 10315-21 (Trautman).

- In any event, whatever the Bortz method, Dr. Crandall testified that the mix of programming in the hypothetical marketplace could and likely would be

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19 Shares of the 3.75 Fund under Method 2 for 1998-1999 combined are:

Movies	Sports	Syndicated	News	Devotional	Canadian
16.37	43.93	12.48	17.93	6.93	2.35

different in some respects from what one sees in the "regulated marketplace." Tr. 10204-05 (Crandall). This supports the view that valuation decisions should not be tied strictly to actual carriage decisions in the current marketplace. *See also* 1989 CRT Decision, 57 Fed. Reg. at 15296.

- The Bortz results are being used to allocate minimum fees paid by cable operators that did not carry any distant signals. *See, e.g.*, Tr. 10300-31 (Trautman).

- Implicit in the Bortz method of applying an automatic zero to PTV when it is not carried is the premise that PTV would be underrepresented in the allocation of funds paid by Form 1 and Form 2 systems or in the minimum fees paid by Form 3 systems. In effect, these various funds, which are not generated by distant signals actually carried, would under the Bortz methodology be allocated based on which distant signals were actually carried in the survey year. The resulting bias against PTV cannot be squared with the language or intent of the compulsory license provisions of the Copyright Act. *See* 17 U.S.C. § 111(d); 37 C.F.R. § 256.2.

(c) Method 3

206. Dr. Fairley's "Method 3" followed a different approach from Method 2 but with the same objective of treating PTV and other program categories similarly. Fairley R.T. 20.

207. Method 3 applies a zero value to other program categories when they were not or would not have been carried, just as PTV was assigned an "automatic zero" when it was not carried. Fairley R.T. 20, 43-50.

208. Method 3 does not involve the estimation of values for signals or categories not actually carried. Tr. 10409-12 (Fairley). Program categories that were not carried -- including PTV -- were always given a zero under Method 3. Tr. 10411 (Fairley). In this way, Method 3 does not present the concerns about valuing non-carried signals that were raised by the CARP in its 1990-92 decision (at 123-24) and by Mr. Trautman in his testimony (Trautman D.T. 42-43; Tr. 10311-14 (Trautman)). In effect, this approach accepts the automatic zero methodology but applies it consistently to all program categories and not just PTV.

209. Under Method 3, Dr. Fairley derived a "threshold value" for each program category. Fairley R.T. 44. If the value of a program category fell below that threshold, it was assigned a zero. *Id.* In this way, both PTV and other program categories were treated in the same fashion -- zeroes were assigned whenever the value for a given operator fell below the threshold value for that program category. *Id.* On the other hand, if the cable operator gave any given category a share above its threshold level, that share was retained and not altered under this method. *Id.*

210. Dr. Fairley referred to the assigned zeroes in Method 3 as "threshold zeroes" -- to signify that a zero was assigned whenever the value of the program category fell below the value threshold. Fairley R.T. 44. There was no need to assign any such zeroes to PTV -- those had already been assigned by the Bortz survey in a manner that corresponded with the threshold effect applied to other categories under this method. *Id.*

211. Final shares under Method 3 were determined by averaging the assigned zeroes with the shares retained. Fairley R.T. 44. The overall average for the category was then a weighted average of zeroes and retained reported shares. *Id.*

212. Method 3 includes in the total number of systems the 19 systems that were PTV-only or Canadian-only in 1998-99 combined, increasing the total systems used from 269 in the Bortz survey to 288. Fairley R.T. 47; Tr. 9880-81 (Fairley). The 19 systems were valued at 100 in the PTV or Canadian shares and at 0 for the remaining categories, reflecting the fact that the remaining categories were not carried as part of a distant signal. Fairley R.T. 47; Tr. 10412 (Fairley). It is appropriate to give PTV a 100 percent share when it is the only distant signal carried, given that Bortz gives a 100 percent share to the five commercial categories combined (other than Canadian) when a commercial signal is carried but PTV is not. Tr. 10651-52 (Fairley).

213. Method 3 also incorporated adjustments to take account of the non-compensable programming on WGN and the fact that PTV only participates in the Basic Fund. Fairley R.T. 47, 49.

214. The final adjusted share estimates under Method 3 are set forth in the following table:

Table 9 -- Final Share Estimates Under Method 3
After Adjustment to Percentage of Basic Fund

	Movies	Sports	Synd	News	PTV	Devotional	Canadian	Sum
1998	13.57	42.54	10.41	16.05	9.78	4.38	3.27	100
1999	14.06	46.09	8.65	15.35	8.13	5.07	2.66	100
Combined 1998-99	13.79	44.26	9.58	15.70	8.99	4.69	2.98	100

Fairley R.T. 49-50.[20]

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20 Shares of the 3.75 Fund under Method 3 for 1998-1999 combined are:

(continued...)

215. Dr. Fairley compared the results from Method 3 with those from Method 2 and found a substantial correlation of the estimated shares under both methods. Fairley R.T. 50. Both thus correlate closely with Method 1 as well. Fairley R.T. 42-43.

216. Dr. Fairley testified that he believed the Panel should use the results of Method 3 (along with those of Method 1) in making its award determinations. Tr. 10018, 10616-17, 10619 (Fairley). He believed that the results of Method 3 served as a floor for PTV's share, given that there was a "downward bias" in Method 3. Tr. 10035 (Fairley).

(d) Benchmark calculation

217. As a check on the general legitimacy of Methods 1, 2, and 3, Dr. Fairley calculated a "benchmark" value for the PTV share based on a comparative analysis of data for the Devotional category. Fairley R.T. 21-27. The benchmark was not meant to derive a value for all categories and thus by itself cannot be relied on to adjust all of the Bortz categories. Fairley R.T. 21. The benchmark serves as a reference point for corroborating the PTV results produced by Dr. Fairley's more comprehensive Methods 1, 2, and 3. Fairley R.T. 21.

218. In calculating the benchmark value for PTV, Dr. Fairley first determined that the average share of the 76 cable systems that were either asked to value PTV or were PTV-only systems was 26.6 percent -- substantially greater than the average of the highest 76 shares given to Devotional (12.8 percent). Fairley R.T. 26.

219. Because of this differential between the highest PTV and Devotional share values, Dr. Fairley concluded that the average PTV share for the remaining 205 systems in the Bortz survey for 1998-99 had to be at least as great as the 2.9 percent average Devotional share for its remaining 205 systems. Fairley R.T. 26.

220. Dr. Fairley calculated the benchmark value for PTV by taking the weighted average of the 26.6 percent (for 76 systems) and 2.9 percent (for the remaining 205 systems). Fairley R.T. 27. This average share of the entire royalty pool was then converted into a percentage of the Basic Fund, yielding a benchmark value of 10.3 percent for PTV. Fairley R.T. 27; Tr. 10413-14 (Fairley).

4. Changes in adjusted Bortz shares between 1990-1992 and 1998-1999

221. With the conversion of WTBS from a distant signal to a cable network in 1998, one would expect to see a decline in the relative valuation accorded to movies and

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(...continued)

Movies	Sports	Syndicated	News	Devotional	Canadian
15.15	48.63	10.53	17.25	5.15	3.27

syndicated series in 1998-99. As Dr. Johnson explained, it would not be sensible to expect that the relative valuation of movies and syndicated series would remain flat (or indeed might go up) in the years after the withdrawal of WTBS from the distant signal marketplace. Johnson R.T. 20-21; Tr. 9275-79 (Johnson). However, without adjustment, the Bortz shares for movies and syndicated series in 1998 and 1999 increased slightly from 1997, the last year that WTBS was in the pool as a distant signal. Johnson R.T. 19-23; Tr. 3694-96 (Johnson). That outcome implies -- implausibly -- that, in relative terms, the Bortz respondents placed no value on the movies and series carried by WTBS as a distant signal in 1997. Johnson R.T. 22.

222. Because of this failure of the Bortz survey to adequately measure this significant change in the distant signal market, Dr. Johnson concluded that major adjustments in the PTV share, accompanied by adjustments as well for movies and series, are needed if the Bortz numbers are to be useful to the CARP. Johnson R.T. 23.

223. A comparison of Dr. Fairley's adjusted Bortz shares from 1992 with his adjusted shares for 1998 shows a significant decrease in the relative valuation for movies and syndicated series -- precisely the pattern that Dr. Johnson testified should have occurred given the conversion of WTBS beginning in 1998.

Table 10 – Adjusted Bortz Shares of Basic Fund (1992 and 1998)

Claimant	**1992**	**1998 (Method 1)**	**1998 (Method 2)**	**1998 (Method 3)**
Sports	37.7	44.4	39.0	42.5
Movies	24.9	7.2	14.9	13.6
Synd. Series	15.6	13.2	12.1	10.4
News	12.1	17.9	16.8	16.0
PTV	5.7	13.9	9.0	9.8
Devotional	3.8	3.5	5.9	4.4
Canadian	0.3	0.0	2.4	3.3

Source: ¶¶ 192, 202, 214; 1990-92 PTV Proposed Findings of Fact and Conclusions of Law, ¶ 169, Table 5.

224. The fact that the Bortz shares, as adjusted, mirror the patterns predicted by Dr. Johnson may arise in part from the fact that, in Methods 2 and 3, Dr. Fairley adjusted for the exclusion of those systems that carried PTV as their only distant signal -- a phenomenon occurring for the first time in 1998-99 and presumably tied to the departure of WTBS, since systems carrying WTBS along with a PTV signal were left with only the latter after 1997. Johnson R.T. 18; Tr. 480 (Trautman).

C. The Johnson Calculations Based on Subscriber Instances of Carriage

225. Dr. Leland Johnson, an economist with over 40 years of experience dealing with issues in the cable and telecommunications industry, analyzed subscriber instances and Nielsen viewing data and concluded that they supported awards to Public Television in excess of 10 percent for both 1998 and 1999. Tr. 3646-57 (Johnson); Johnson R.T. 1-13; Johnson D.T. 1-25.

1. Substantial increase in percentage of instances of carriage and subscriber instances attributable to public television

226. A distant signal carried by one cable system is one "instance of carriage." Johnson D.T. 9. As a practical matter, analysis of instances of carriage can be applied only to evaluating the relative marketplace value of PTV programming because it is the only program category separately identifiable with specific distant signals. Johnson D.T. 9. As the Copyright Royalty Tribunal noted, "because PBS occupies the entire broadcast signal . . . [e]ach time a cable operator chooses to import a PBS signal, even if it is already carried locally, the operator has made his or her desire known." 1983 Cable Royalty Distribution Order, 51 Fed. Reg. 12792, 12811 (Apr. 15, 1986). "The carriage of the public broadcasting signals indicates the appeal of their programming." 1979 Cable Royalty Distribution Order, 49 Fed. Reg. 20048, 20050 (May 11, 1984).

227. The following table provides instances of carriage data comparing 1992 and 1997 with 1998 and 1999.

Table 11 -- Average Instances of Distant Signal Carriage

Year	PTV	Ind.[21]	Other[22]	Total	PTV Share	Ind. Share	Other Share
1992	539	5261	1682	7482	7.2%	70.3%	22.5%
1997	576	4398	1300	6274	9.2%	70.1%	20.7%
1998	587	2360	1213	4160	14.1%	56.7%	29.2%
1999	603	2310	1379	4292	14.0%	53.8%	32.2%
Change in Share							
1992-98					96%	-19%	40%
1992-99					94%	-23%	43%

Johnson D.T. 10.

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21 "Ind." refers to independent stations and superstations, such as WTBS (1992 and 1997 only) and WGN.

22 "Other" encompasses network, low-power, Canadian and Mexican broadcast stations, with network affiliates accounting for about 93% of the total instances within this grouping.

228. PTV's instances of carriage increased from 539 in 1992 to 587 in 1998 and 603 in 1999. Johnson D.T. 10; Tr. 5477-78 (Bennett). Because total instances of carriage for all distant signals decreased from 1992 to 1999, PTV's share of all instances of carriage substantially increased from approximately 7.2 percent in 1992 to approximately 14 percent in 1999. Johnson D.T. 10; Tr. 5477-79 (Bennett).

229. PTV's instances of carriage as a percentage of all Basic Fund instances of carriage (*i.e.*, excluding instances of carriage attributable to 3.75 signals) was 8 percent in 1992 (539/6772) and rose to 15.5 percent in 1998 (587/3778) and 15.6 percent in 1999 (603/3864). Johnson D.T. 11.

230. One subscriber instance is defined as one subscriber having access to one distant signal. Johnson D.T. 12. In contrast to instances of carriage data, subscriber instances discriminate among cable systems by size and also by whether the distant signal covers all subscribers or just some of them. Johnson D.T. 12. For a "fully" distant signal covering the whole subscriber area, the entire subscriber base is recorded. Johnson D.T. 12. If the signal is distant only for a portion of the subscriber base (a "partially" distant signal), only that portion of the base is included. Johnson D.T. 12.

231. The following table provides subscriber instances of carriage data comparing 1992 and 1997 with 1998 and 1999.

Table 12 -- Average Subscriber Instances of Distant Signal Carriage Within Basic Fund

Year	Total (Millions)	3.75 & Syndex (Millions)	Basic Fund (Millions)	PTV (Millions)	PTV Share	PTV Share Change From 1992
1992	124.128	11.803	112.325	6.654	5.9%	
1997	117.218	13.366	103.852	6.539	6.3%	6.8%
1998	67.108	6.163	60.945	6.718	11.0%	86.4%
1999	68.522	6.828	61.694	7.052	11.4%	93.2%

Johnson D.T. 13.

232. PTV's subscriber instances of carriage increased from 6.654 million in 1992 to 6.718 million in 1998 and 7.052 million in 1999. Johnson D.T. 13. Because total subscriber instances decreased from 1992 to 1999, PTV's share of subscriber instances increased substantially from approximately 5.4 percent of all subscriber instances in 1992 to 10.1 percent of all subscriber instances in 1999. Johnson D.T. 13; Tr. 5476-77 (Bennett).

233. PTV subscriber instances as a percentage of Basic Fund subscriber instances of carriage (*i.e.*, not including subscriber instances of carriage attributable to 3.75 signals) increased from 5.9 percent in 1992 to 11 percent in 1998 and 11.4 percent in 1999. Johnson D.T. 13.

2. 1998-99 Calculations Based on Subscriber Instances

234. An instance of carriage of a PTV distant signal represents a "vote" by the cable operator. Johnson R.T. 2; Johnson D.T. 9. Unlike any other program category, when a cable operator chooses to retransmit a distant PTV signal, it affirmatively chooses to use a portion of its limited channel capacity for a station that carries 100 percent PTV programming. Johnson R.T. 2; Tr. 3669-70, 9296-78 (Johnson). The cable operator thus is exercising its judgment that the PTV signal -- and the PTV category of programming -- has value in terms of attracting and retaining subscribers. Johnson R.T. 2; Tr. 3669-70 (Johnson). A cable operator would not elect to use its limited channel capacity on a PTV distant signal, and sacrifice other available programming alternatives, unless it concluded that the PTV distant signal added value in terms of attracting and retaining subscribers. Johnson R.T. 2; Tr. 3669-70 (Johnson); ¶¶ 9-11, *supra*.

235. The must-carry rules for local PTV signals do not undermine the general point that a cable operator's decision to import a PTV distant signal is a reflection of the value of this programming to cable operators:

- The must-carry rules apply to local signals. Tr. 1113-14, 1182, 1230, 1245-46 (Hazlett); Allen D.T. 6.

- The must-carry rules do not require the importation of distant signals except in one limited circumstance (a cable system with 13 to 36 channels and no local PTV signal) that applied to less than 5 percent of all PTV instances of carriage in 1998 and less than 2 percent in 1999. Tr. 9238 (Johnson). And in that circumstance, it would be highly likely that the cable system without a local PTV signal would import a distant signal whether or not the must-carry rules were in place. Tr. 10530 (Gruen); Tr. 9131, 9237-53 (Johnson), Fuller D.T. 3-4.

- When PTV signals are imported as distant signals, they are almost always either the cable operator's first or second signal. Johnson D.T. 21; Fuller D.T. 3-4, 6; PTV Ex. 16. This reflects that cable operators are making a choice to import distant signals to add diversity to their programming mix. Fuller D.T. 2-6; Wilson D.T. 25-27.

- Even if a cable system is subject to must-carry rules, that does not mean it would choose not to carry a PTV signal in the absence of such a constraint. Tr. 9131, 9237-53 (Johnson); Fuller D.T. 3-4.

- The evidence does not show a significant increase in carriage of PTV distant signals at the time the must-carry rules went into effect. Tr. 9245-48 (Johnson).

236. In contrast to instances of carriage data, subscriber instances discriminate among cable systems by size and also by whether the distant signal covers all subscribers or just some of them. Johnson D.T. 12. Subscriber instances provide a more reliable measure of

the underlying value of distant signals to cable operators and thus serve as more reliable inputs in determining appropriate royalty awards. Johnson D.T. 13; Tr. 3675-77, 3841-43 (Johnson).

237. Subscriber instances of carriage are a valuable metric for determining PTV's share based solely on observations for 1998-99. Johnson R.T. 2. Measured solely by events in the 1998-99 period, subscriber instances of carriage provide important insights into the judgments of cable operators about the value of PTV distant signals. Johnson R.T. 2.

238. PTV's subscriber instances of carriage data are set out in ¶ 231, Table 12, *supra*. In 1998, 11 percent of all Basic Fund subscriber instances of carriage were attributable to PTV, and in 1999, 11.4 percent of those instances were attributable to PTV.

239. In order to use 1998-99 subscriber instances data as a metric for determining PTV's share, it is necessary to adjust that data to reflect (1) the fact that about 50 percent of WGN programming and 50 percent of network affiliate programming (the network portion) are non-compensable, and (2) the fact that PTV stations generally broadcast about 20 hours out of each 24-hour day. Johnson R.T. 6-7; Fairley R.T. 18. The following table provides these adjustments:

Table 13 – Adjusted Subscriber Instances of Distant Signal Carriage (Millions)

Year	Total Instances	WGN	WGN 50%[23]	Affil.	Affil. 50%[24]	PTV	PTV 83.3%[25]	Net Pool[26]	PTV Share Net Pool	PTV Share Basic Fund
1998	67.108	32.115	16.058	12.343	6.172	6.718	5.596	43.754	12.8%	14.1%
1999	68.522	33.477	16.738	12.402	6.201	7.052	5.874	44.405	13.2%	14.6%

Johnson R.T. 7.

240. As shown in the table above, the adjusted PTV shares of subscriber instances of carriage are 12.8 percent and 13.2 percent of the net pool for 1998 and 1999, respectively. Johnson R.T. 7. When the adjusted PTV subscriber instances are calculated as a share of the Basic Fund only, excluding the 3.75 Fund and the Syndex Fund, adjusted PTV subscriber instances are 14.1 percent for 1998 and 14.6 percent for 1999. Johnson R.T. 7.

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23 Only 50 percent of WGN subscriber instances are compensable.

24 Only 50 percent of network affiliate subscriber instances are compensable.

25 Reduction in PTV subscriber instances to account for 20-hour average programming day.

26 Net Pool = [Total Instances] - [WGN 50%] - [Affil. 50%] - ([PTV] - [PTV 83.3%]).

241. Each subscriber instance of carriage for a PTV signal is at or near parity with each subscriber instance of carriage for a non-PTV signal. Johnson D.T. 16-23; Johnson R.T. 8, 12-13; Tr. 9191-208 (Johnson). Parity between PTV and non-PTV distant signals would support awards for PTV in the range of 14 percent of the Basic Fund; awards of at least 10 percent would be justified even if the value of PTV subscriber instances were discounted by 30 percent compared to non-PTV subscriber instances. Johnson R.T. 8. It is implausible that there would be that much of a difference in relative value between the carriage of a PTV signal and a commercial signal -- to the contrary, as discussed in ¶¶ 375-455, when a cable operator carries a PTV distant signal it will place a relatively high value on it (even though PTV signals are less often carried distantly than commercial signals). Johnson R.T. 8; Tr. 9199-200, 9206-07 (Johnson).

242. Parity or near parity between PTV and non-PTV subscriber instances is also implied by the CARP's 1990-92 award to Public Television. After considering the voluminous record in that proceeding, and based on all of the evidence before it, the CARP awarded PTV a royalty share of 5.5 percent of the Basic Fund. Johnson D.T. 14. Although subscriber instances data was not explicitly used in the CARP's decision-making, the 5.5 percent award implies a 92.4 percent relative valuation for PTV subscriber instances. Johnson D.T. 14.

243. If this relative valuation of 92.4 percent is applied to PTV's Basic Fund subscriber instances for 1998 and 1999, PTV's share of subscriber instances (and its implied royalty award) is 10.3 percent for 1998 and 10.7 percent for 1999. Johnson D.T. 15-16. Further, applying the relative valuation of 92.4 percent to the figures presented by Dr. Johnson in rebuttal (¶ 239, *supra*), which provide corrected and more accurate subscriber instances data, the Basic Fund shares for PTV for 1998 and 1999 would be 13 percent and 13.5 percent, respectively (0.924 multiplied by the last column of the table in ¶ 239, *supra*).

244. Dr. Johnson testified that a valuation of 92.4 percent for PTV subscriber instances relative to non-PTV subscriber instances is realistic and even conservative; the relative value of PTV subscriber instance may be <u>above</u> parity under a wide range of circumstances. Johnson D.T. 16-19.

245. Non-PTV distant signals carrying movies, syndicated shows, and sports must compete with a number of channels carrying similar programming. Johnson D.T. 21. At bottom, the willingness of a cable operator to pay for a given signal depends on the other programming it carries, including cable networks and local broadcasting stations. Tr. 826 (Crandall); Tr. 7069 (Carey); Johnson D.T. 21. PTV signals have faced some competition from cable channels with programming similar to some of the programming that PTV stations broadcast, but non-PTV distant signal providers face an even greater abundance of similar programming from other sources, including particularly large increases in the supply of sports, syndicated series, and movies on cable networks. *See* ¶¶ 87-98, *supra*. Johnson D.T. 22. Further, unlike PTV, which in comparison to the "look-alike" competitors offers the "best of the best" in its program categories (Wilson D.T. 26), the alternative sources of sports programming, syndicated series and movies are generally superior to distant signals as sources for programming in these categories. Fuller R.T. 5-7. Thus, relatively high valuations for PTV distant signals would reflect the fact that the supply of substitutable

program sources is narrower than is true for non-PTV distant signals featuring mass-appeal programming. Johnson D.T. 21.

246. Parity or near parity between PTV and non-PTV subscriber instances is also supported by Nielsen viewing data, as discussed in ¶¶ 255-56, *infra*.

247. Dr. Johnson's royalty calculations based on subscriber instances data are much more than mere time or volume measures, in that they take into account relative valuation between PTV and non-PTV instances and reflect actual choices of cable operators to carry a distant PTV signal. Tr. 3756-58, 3843-44, 9188-89, 9198-99 (Johnson). His calculations also adjust for subscriber base and take into account the difference between partially and fully distant signals. Tr. 3756-57 (Johnson).

3. Calculations based on viewing shares

248. Focusing directly on actual viewer behavior, the Nielsen viewing data presented by Program Suppliers purports to measure program valuations from a vantage point wholly different from the one embodied in subscriber instances analysis. The similarity between the PTV shares exhibited by the two dissimilar approaches adds further support for PTV awards exceeding 10 percent. Johnson R.T. 8; Tr. 9198-99 (Johnson).

249. Viewing data are not a perfect measure of value to cable operators but have always been relied on in these proceedings as one input in determining awards. Johnson R.T. 8; Tr. 9117-18, 9177 (Johnson). Not all viewing minutes are of equal value. Some viewers subscribe to cable only because of their avidity for certain programs on particular channels; it is reasonable to assume that cable operators place a higher value on such viewing minutes. Johnson R.T. 9.

250. The following table presents the viewing minutes and shares from the 1998-99 Nielsen viewing data:

Table 14 – 2+ Viewing Minutes and Shares 1998-99

Age 2+ Demographic		
Category	**Viewing Minutes (000)**	**Share**
Program Suppliers	11,911	59.3%
Local	2,939	14.6%
Sports	1,746	8.7%
Devotional	129	0.6%
PTV	3,348	16.7%
Total	20,073	99.9%

Source: PS Exhibits 20, 22.

Johnson R.T. 9.

251. As shown in the table above, the PTV share of compensable viewing minutes for all ages is 16.7 percent for 1998-99. Johnson R.T. 9. When PTV's 2+ viewing share in the table above is adjusted to account for PTV's participation in only the Basic Fund, the adjusted share becomes 18.6 percent for the two years combined. Johnson R.T. 9.

252. The Basic Fund adjustment is necessary because the viewing minutes represent all viewing on distant signals retransmitted by cable operators. No effort was made by Nielsen to separate out viewing of signals for which fees were paid into the 3.75 Fund as opposed to all other types of signals. Johnson R.T. 9; Lindstrom D.T. 4-6.

253. The share of Sports 2+ viewing minutes in the table above (8.7 percent) contrasts with the size of its award in the 1990-92 proceeding (nearly 30 percent), possibly because the value per viewing minute for live sporting events is higher than that for other program categories (although precisely how much higher is debatable). Johnson R.T. 10. Because such a large disparity may distort the comparisons between viewing shares for other categories, the following table presents PTV's viewing shares subtracting Sports' viewing minutes and assuming an award to Sports of 30 percent:

Table 15 – PTV Shares of 2+ Viewing Minutes – 1998-99

Age 2+ Demographic		
Category	**Overall**	**Sports Excluded**
PTV Share (Minutes)	16.7%	
Reduction in Total Minutes		8.7%
PTV Share Net Minutes		18.3%
Reduction in Pool Size		30%
PTV Share Total Pool		12.8%
PTV Share Basic Fund	18.6%	14.2%

Johnson R.T. 11.

254. The table above shows that with Sports excluded, total minutes fall by 8.7 percent (the share attributable to Sports); the PTV share of remaining minutes rises to 18.3 percent; the royalty pool falls by 30 percent (the size of the hypothesized Sports award); the PTV share of the total pool falls to 12.8 percent (18.3% x 70%); and the PTV share applied to the Basic Fund is 14.2 percent.

255. An assumption of parity between PTV and non-PTV viewing minutes is reasonable given that the actual viewing relationships between PTV and non-PTV programming are being examined as a measure of relative value. Johnson R.T. 12. On a per-minute-viewing basis parity in value (at least) between PTV and non-PTV programming would be expected once live sporting events are excluded. Johnson R.T. 12. Indeed, because of strong viewer avidity within PTV programming, PTV programming (again on a per-viewing-minute basis) may be more valuable to cable operators than is true for movies, series, and local programming on commercial distant signals. Johnson R.T. 12; Tr. 9204-07 (Johnson); *see also* ¶¶ 430-36.

256. Parity or near parity in viewing minutes corroborates the assumption of parity or near parity with regard to subscriber instances, given that the PTV shares are at similar levels in the two measures and viewing minutes are "carried" on subscriber instances. The larger the PTV viewing share, the larger the relative value of PTV subscriber instances. Johnson R.T. 12; Tr. 9302-04 (Johnson).

D. The Ducey/Fratrik Time Study

257. The Commercial Television Claimants, through the testimony of Drs. Richard Ducey and Mark Fratrik, presented a comprehensive statistical study estimating the

amount of programming, by program type, carried on distant signals by Form 3 cable systems in 1992 and 1998-99. Ducey D.T. 9-10; NAB Ex. 10.

258. The time study covered millions of programs aired on 126 days across the three years 1992, 1998, and 1999 by the over 600 U.S. commercial stations and 160-200 educational, Canadian, Mexican, and low-power stations carried by Form 3 cable systems. Ducey D.T. 10; NAB Ex. 10, at 3-6. Non-compensable network programming and substituted programming aired on the WGN national feed were excluded from the time study. NAB Ex. 10, at 4-5, 9.

259. The following table summarizes the results of the study and shows the relative amounts of non-network distant signal programming in each category available to Form 3 cable subscribers for 1992 as compared with 1998-99. Ducey D.T. 10; NAB Ex. 10, at 13; NAB Ex. 5 (graphical depiction of results). These final percentage measures take into account both the number of programming minutes and the number of subscribers with access to the stations airing the programs. Ducey D.T. 10; NAB Ex. 10, at 12-13.

Table 16 -- Time Study Shares of Different Claimant Categories -- 1992, 1998-99

Claimant Category	1992	1998-99
Program Suppliers	77.87%	60.38%
Commercial TV	8.79%	13.00%
Public Broadcasting	5.04%	14.87%
Sports	4.75%	4.91%
Devotional	2.55%	2.94%
Canadian	1.00%	3.68%

260. The time study reveals a substantial increase in the relative amount of Public Television programming available to Form 3 cable subscribers from 1992 to 1998-99: from 5.04 percent to 14.87 percent. Ducey D.T. 10; NAB Ex. 5; NAB Ex. 10, at 13-14. The study also shows an increase in the share of Commercial Television and Canadian programming and a substantial decrease in the relative amount of Program Suppliers programming available to subscribers between those two time periods. Ducey D.T. 10-12; NAB Ex. 5; NAB Ex. 10, at 13-14. The relative amount of Sports and Devotional programming available in 1998-99 was roughly the same as it was in 1992. *Id.*

261. Dr. Ducey testified that the changes in relative program time revealed in the time study were largely the result of the conversion of WTBS to a cable network in 1998. Ducey D.T. 11-12; NAB Exs. 5-6. "WTBS was a very significant factor in the Program Suppliers share for many years, but it essentially falls out of the equation in 1998 and 1999." Ducey D.T. 12; NAB Exs. 5-6.

E. The Rosston Analysis

262. The Commercial Television Claimants also presented, through the testimony of Dr. Gregory Rosston, an econometric analysis purporting to measure the relative marketplace value of the different program types in 1998 and 1999. The Rosston analysis

focused on the relationship between distant signal programming and the royalties paid by cable operators to carry that programming. Rosston D.T. 5-11.

263. In performing his analysis, Dr. Rosston developed a regression model that incorporated various factors potentially relevant to the determination of royalties paid by cable operators, including the number of subscribers on a system, the number of channels on a system, the count of local channels, controls for income, whether the system paid any royalties at the 3.75 rate, whether the system carried any partially distant signals, and program time. Rosston D.T. 9.

264. After performing his regression analysis, Dr. Rosston converted his regression estimates into an implied royalty share for each claimant category, as set forth in the following table.

Table 17 -- Rosston Royalty Share Allocation
Form 3 Systems with Positive Distant Signal Equivalents
1998-99

Programming Category	**Implied Share of Royalties** (Excluding Mexican and Low Power)
Program Suppliers	48.87%
Sports	32.65%
Commercial TV	10.93%
Public Broadcasting	7.54%
Devotional	0.00%
Canadian	0.00%

Rosston D.T. 22-24.

265. While Dr. Rosston conducted several different analyses to test his methodology, he believed that his best share estimates are those reflected in the table above, because the method used to generate those results takes into account the most information and reflects the reality of the distant signals that cable operators actually chose. Tr. 2889-90 (Rosston).

266. Dr. Rosston testified that, given that Public Television only draws from the Basic Fund and that his share estimates relate to the entire royalty pool, Public Television's 7.54 percent share would need to be mathematically converted upward to arrive at Public Television's share of the Basic Fund only. Tr. 2860-62 (Rosston). Based on the assumption that the royalty amounts in the 3.75 and Syndex Funds were only ten percent of the amount in the Basic Fund, Dr. Rosston computed an adjusted Public Television share of 8.3 percent based on his preferred regression analysis. Tr. 2865-67 (Rosston); PTV Demo Exs. 1-2. Dr. Rosston further agreed that this percentage could conceivably be as high as 11.5 percent of the Basic Fund, given the confidence intervals for the Public Television coefficient generated by his preferred regression analysis. Tr. 2869-79 (Rosston); PTV Demo Exs. 1-2.

267. Dr. Rosston did not, as Dr. Crandall suggested (Crandall R.T. 8-9), give PTV an inappropriate credit for 3.75 Fund payments that would negate the need for the Basic Fund adjustment. To the contrary, Dr. Rosston included a control ("dummy") variable in his regression model to account for systems that carry distant signals at the higher 3.75 percent rate. Rosston D.T. 10; Tr. 10157, 10214-19 (Crandall). Dr. Crandall was unable to quantify the extent of any bias that he claimed existed and conceded that such bias would apply to other categories as well. Tr. 10221-25, 10228 (Crandall). Dr. Crandall also conceded that the reason Dr. Rosston used the 3.75 dummy variable was to eliminate any skewing of the results in favor of PTV or any other category. Tr. 10219, 10221 (Crandall). In any event, the question of the Basic Fund adjustment goes to how the Rosston results are applied and not to whether the Rosston results are in fact accurately estimated. Tr. 10227-28 (Crandall).

F. The Gruen Adjustments to the Nielsen Viewing Data

268. Dr. Arthur C. Gruen, a consultant in the entertainment and communications industry, testified for the Program Suppliers regarding adjustments to the results of the Nielsen viewing study. Gruen D.T. 4; Tr. 7534 (Gruen). Dr. Gruen first concluded that the relevant viewing measurement for these purposes is viewing by the 18-49 demographic. Gruen D.T. 13-25. Dr. Gruen then purported to measure the popularity of various types of programming by comparing viewing minutes to available quarter hours. Gruen D.T. 29-31. Dr. Gruen reasoned from the fact that PTV programming was unaffected by the loss of WTBS and his own conclusion that the appeal of PTV programming had declined that PTV should receive a lower share in 1998-99 than in 1990-92. Gruen D.T. 35. Finally, Dr. Gruen calculated shares for the other claimants based only on 18-49 viewing and based on his purported adjustment for viewing "avidity." Gruen D.T. 37-40.

1. Dr. Gruen's "avidity" calculations

269. Dr. Gruen claimed that relative shares of viewing represent a combination of program volume for each category and program popularity. Gruen D.T. 29. Dr. Gruen thus purported to determine the "avidity" of viewers for each program category by dividing the viewing minutes as determined by the Nielsen studies by the number of quarter hours of programming reported by Nielsen. Gruen D.T. 29-31. Dr. Gruen also adjusted the shares of viewing minutes for Program Suppliers, Local, Sports, and Devotional[27] (excluding PTV programming) by multiplying each category's viewing minutes by the midpoint between 1 and its ratio of viewing per quarter hour, and then calculating the relative shares. Gruen D.T. 39. Finally, Dr. Gruen averaged the adjusted 18-49 viewing shares for sweeps and for full year viewing. Gruen D.T. 40.

270. In his rebuttal testimony, at the Panel's direction, Dr. Gruen recalculated adjusted shares (this time including PTV) based on both 18-49 viewing and 2+ viewing, using

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[27] The Nielsen studies did not measure programming claimed by the Canadian Claimants, Music Claimants, or NPR (Kessler D.T. 25), and Dr. Gruen's analysis also ignored those claimant groups.

both a "mid-point avidity adjustment" (multiplying viewing minutes by the midpoint between 1 and his "avidity" ratio) and a "full avidity adjustment" (multiplying viewing minutes by his "avidity" ratio). Gruen R.T. 36-46. In rebuttal testimony, Dr. Gruen also made similar recalculations using available minutes rather than quarter hours (*i.e.*, he multiplied the quarter hour figures in the tables above by 15). Gruen R.T. 40-46.

2. Dr. Gruen's assumption that "avidity" can be measured by viewing minutes per quarter hour of programming

271. Dr. Gruen's methodology is based on an assumption that "avidity" can be measured by a comparison of viewing minutes to quarter-hours of programming time. But other witnesses explained that "avidity" simply cannot be measured in this way, and that the Nielsen viewing studies (whether deflated by quarter hours of programming or some other measure) simply cannot be used to measure "avidity" or intensity of interest in the viewing measured by Nielsen. Fuller R.T. 2-5; Tr. 3477-79, 9768-73 (Fuller); Ducey R.T. 6.

272. "Avidity" is a measure of the intensity of a subscriber's interest in and preference for particular programs. Tr. 9769, 9774 (Fuller); Fuller R.T. 2; Ducey R.T. 6. "To motivate subscriptions, a distant signal must provide unique programming, not available from other sources, that generates a loyal following." Allen D.T. 5. "From the perspective of attracting or retaining subscribers, programming that adds to a subscriber's perception of value or satisfaction with the cable program offerings is best." Ducey R.T. 6.

273. Dr. Gruen conceded in oral testimony that his "avidity" calculations did not measure a viewer's intensity of preference for any particular programming. Tr. 7821, 7924 (Gruen). "[M]aybe I shouldn't have used the term 'avidity,'" Dr. Gruen said. Tr. 7925 (Gruen).

274. Viewing minutes as measured by Nielsen do not measure viewer avidity, even if divided by the amount of programming available. Tr. 3477-78, 9768-73 (Fuller); Fuller R.T. 2; Ducey R.T. 6. Dr. Gruen's "avidity" measure at most simply computes the gross amount of viewing for large program categories, divided by the gross amount of time for each programming category. Even putting aside the problems of methodology in this approach (discussed immediately below), this calculation would at most only measure average audience size, and would not measure intensity of viewers' preferences for or interest in the programming. Fuller R.T. 2; Tr. 3477-79 (Fuller); Ducey R.T. 6.

275. Quintile data -- where viewing data is dividing among five groups of viewers from heaviest to lightest -- also does not measure avidity. Tr. 3478-79 (Fuller). The data still only reflect time spent viewing; measurements of avidity require studies that focus on attitudinal or psychological measures. Fuller R.T. 2-5; Tr. 3479 (Fuller).

276. Under the Gruen avidity adjustment, if Program A, of given length, were broadcast once and generated a total of 2 million viewers and Program B, of the same length, were broadcast twice and attracted 1 million viewers for each broadcast, both programs would have the same total viewership but the Gruen adjustment would suggest there is more "avidity" for Program A than Program B. Johnson R.T. 15. This would be a spurious

distinction that cannot be justified based on relative "avidity" -- there is simply no way to know from this comparison of viewing minutes against program time whether there is more, less, or the same "avidity" or intensity of interest in Program A or Program B. Johnson R.T. 16. If viewing is to be given weight in terms of valuing different program categories, the pertinent measure for these purposes is relative viewing shares as measured by relative viewing minutes. Johnson R.T. 16.

3. The quarter hours of programming in the Nielsen study cannot properly be divided into the viewing minutes measured by the study

277. Aside from Dr. Gruen's mistaken premise that "avidity" can be measured by comparing viewing minutes against quarter hours, there is furthermore a fundamental flaw in methodology that precludes any reliance on the Gruen "avidity adjustment." Fuller R.T. 2; Ducey R.T. 7; Johnson R.T. 15. The evidence reflects that the quarter hours reported in the Nielsen study reflect the program hours for the broadcast stations (179 or 180 in the two years at issue) included in the study. Lindstrom D.T. 5; Tr. 7217 (Lindstrom). These quarter hours do not reflect and do not measure how broadly particular stations are carried as distant signals. Tr. 7409 (Lindstrom). In contrast, the viewing minutes reported in the Nielsen study are significantly influenced by the extent to which particular broadcast signals are carried as distant signals -- those more heavily carried tend to generate more viewing minutes. Tr. 7356 (Lindstrom).

278. Each quarter hour of available programming thus has equal or unweighted importance, while viewing minutes are heavily affected by the number of subscribers to whom the programming is available. Ducey R.T. 7. It is not proper to divide viewing minutes by quarter hours that do not vary according to the breadth of carriage for particular distant signals. Johnson R.T. 15. "Any proper comparison of viewing and time would need to reflect the potential for viewing as part of the 'time' measure." Ducey R.T. 7.

279. This point was illustrated by hypothetical examples in the cross-examination of Dr. Gruen, which showed that viewing minutes could differ from quarter hours based on the scope of carriage of particular distant signals. Tr. 7879-929 (Gruen). One distant signal could have higher viewing minutes per quarter hour than another distant signal, for each system on which it is carried, but could be less widely carried. Tr. 7878-97 (Gruen). Quarter hours therefore do not measure the availability of programming to viewers because, under the Nielsen methodology, there is no effort to determine how widely any particular station is distributed as a distant signal. Tr. 7356 (Lindstrom).

280. For this reason, the figures on viewing minutes and quarter hours reported in the Nielsen study are not comparable to each other. Tr. 7355-56, 7408-09 (Lindstrom). Nielsen's Mr. Lindstrom acknowledged that the two numbers are not readily compared because they are measuring different things. Tr. 7355-56, 7408-09 (Lindstrom). Dr. Gruen acknowledged that his viewing to time calculations did not take into account varying availabilities of signals to viewers. Tr. 7836-50 (Gruen).

281. Mr. Lindstrom of Nielsen testified for the Program Suppliers that it is impossible to generate a rating from the Nielsen numbers in its viewing study for this proceeding because Nielsen does not know the number of metered households that had access to any given distant signal in its study. Tr. 7410 (Lindstrom). In compiling its viewing numbers for its study, Nielsen did not look at how many of its households had the distant signals in its sample available to them; that data was "irrelevant." Tr. 7410 (Lindstrom). Nielsen "only look[ed] at the viewing and sharing out [of] the pie of viewing to say what percentage of all the viewing occurred in certain program types." Tr. 7410 (Lindstrom).

282. Dr. Gruen conceded that his analysis does not factor in how many potential viewers there were for the programming that the viewing study measured. Tr. 7838-39 (Gruen). Dr. Gruen conceded that he did not consider that the quarter hours figures provided by Nielsen did not vary according to the availability of the 180 stations in its study. Tr. 7918-20 (Gruen). Dr. Gruen also conceded that without knowing how widely available particular distant signals were in the Nielsen study, one could have the situation in which two signals had identical ratios of viewing minutes to available quarter hours, but because one was more widely available the actual rate of viewing to that signal was much lower than to the less widely carried signal. Tr. 7887-89 (Gruen).

283. In the proceeding to distribute the 1989 cable royalties, Program Suppliers presented a similar analysis of viewing and available programming time "on the belief that the viewing-to-time ratio is 'indicative of the relative popularity and value' of a program category." 1989 Cable Royalty Decision, 57 Fed. Reg. 15286, 15289 (April 27, 1992). The Cable Royalty Tribunal rejected Program Suppliers' contention and stated the following:

> However, NAB's cross examination demonstrated that a program that had one hour of time on a superstation would more likely result in a higher viewer-to-time ratio than a program that had one hour of time on a regional station, because a superstation reaches many more viewers. Therefore, the viewing-to-time ratio could be more a function of the access to viewership than the intensity of the viewers, and would unfairly affect a program category like NAB that has most of its shows on regional stations.

57 Fed. Reg. at 15289.

284. Dr. Gruen agreed that there could be high viewing of PTV stations on the systems where they were carried but PTV stations may not have been as widely available as other stations in the Nielsen study. Tr. 7920-21 (Gruen).

285. Dr. Gruen also had no basis for averaging sweeps and full year viewing in his original final calculations. In the Nielsen studies, sweeps viewing minutes are included in the full year viewing minutes. Tr. 7228 (Lindstrom). Accordingly, averaging sweeps and full year viewing over-emphasizes the impact of sweeps viewing. Tr. 7228 (Lindstrom). There is no reason to average sweeps viewing with full year viewing. Tr. 7228 (Lindstrom).

286. The Commercial Claimants presented calculations to address the flaw in Dr. Gruen's simple comparison between viewing minutes and quarter hours. NAB Ex. 17-R. Dr. Ducey modified the program volume measure to reflect relative availability to potential viewers, excluded 54.6 percent of programming on WGN that is not compensable, and used available program minutes, not program quarter hours, to measure program volume. Ducey R.T. 7-10. "[T]he result of correcting Dr. Gruen's methodological errors in computing his 'avidity' measure is to leave the viewing percentages essentially unchanged." Ducey R.T. 10. This is to be expected because viewing audiences of program categories on distant signals are so extremely small that differences in numbers of viewers per minute of programming across categories are lost in the "noise." Ducey R.T. 10.

4. Dr. Gruen's assertion that the relevant viewing measure is viewing by the 18-49 demographic

287. A core thrust of Dr. Gruen's testimony was that the relevant viewing measurement, for purposes of assessing marketplace value, is viewing by persons in the 18-49 demographic. Gruen D.T. 13-31.

288. Dr. Gruen's approach excluded 56 percent of the viewing minutes in the Nielsen study. Tr. 7997-98 (Gruen). It excluded all viewing by children, even though most parents of children are in the 18-49 demographic that he asserted were most relevant to cable operators. Tr. 8012 (Gruen). His approach excluded roughly 36.75 percent of the population, who fall outside the 18-49 demographic. PTV Ex. 28-X.

289. At the threshold, Dr. Gruen's reliance on the 18-49 demographic, to the exclusion of these other groups, can be discounted as a matter of methodology and statistics. Dr. Gruen testified on cross-examination that his basis for focusing solely on the 18-49 demographic was his conclusion that variations in cable network license fees were more closely correlated with viewing by the 18-49 demographic than with viewing by all persons. Tr. 7991-94 (Gruen). Dr. Gruen's written testimony stated that he examined 32 cable networks "to determine whether advertising, which is our proxy for 18-to-49 viewing, is a better barometer of license fee payments than total day household ratings." Gruen D.T. 23. He testified that "if I couldn't demonstrate that advertising was a better fit, I think I'd have a hard time justifying using 18 to 49." Tr. 7992-93 (Gruen). Dr. Gruen also acknowledged on cross-examination that he had not undertaken any statistical analyses to determine whether the numerical differences he had described in his testimony were of statistical significance. Tr. 7993 (Gruen). He acknowledged that he would "have a hard time justifying" his reliance on the 18-49 demographic unless there was a statistically significant difference in the numbers. Tr. 7992-93 (Gruen).

290. In rebuttal, Dr. Fairley presented written testimony that tested the statistical premise for Dr. Gruen's reliance on the 18-49 demographic. Fairley R.T. 52-57. Dr. Fairley established that there was not a statistically meaningful basis for concluding that cable network license fees were more closely related to viewing by the 18-49 demographic than viewing by all persons. Fairley R.T. 51-57. In other words, Dr. Fairley's testimony provided the statistical test that Dr. Gruen testified he had not undertaken, and demonstrated that there was no statistically supportable basis for Dr. Gruen's reliance on the 18-49 demographic.

(Program Suppliers did not ask Dr. Fairley any questions on this point during his cross-examination.) Since Dr. Gruen himself acknowledged that he would "have a hard time justifying using 18 to 49" without a statistically significant basis in the data, and since Dr. Fairley's testimony establishes that there is no such basis, this by itself establishes that Dr. Gruen's sole reliance on the 18-49 demographic should be rejected.

291. In particular, Dr. Fairley's analysis showed the following:

- The two factors of household ratings and advertising revenues (Dr. Gruen's proxy for the 18-49 viewing) both have extremely high correlations with the rankings by license fees. Fairley R.T. 52-55. Dr. Fairley showed that household ratings has an 0.98 correlation with license fees, while advertising has a correlation of 0.99. Fairley R.T. 54-55. Thus, the two are hardly distinguishable, which means that there is no statistical difference between Dr. Gruen's measures of how "closely matched" ads are with license fees versus how "closely matched" ratings are with license fees. Fairley R.T. 55.

- Dr. Fairley further analyzed Dr. Gruen's comparison of the differences of the values for fees less the values for ads to the difference between the values for fees less the values for ratings. Fairley R.T. 55-57. Dr. Fairley showed that the result of Dr. Gruen's comparison would occur with a probability of 1 in 8, and that a mere result of 1 in 8 is not statistically significant (in other words, it cannot be distinguished as a matter of statistics from a random event, like flipping a coin three times). Fairley R.T. 56-57.

292. Putting aside the statistical evidence presented by Dr. Fairley, there is other extensive evidence in the record contradicting Dr. Gruen's assertion that cable operators would be solely interested in the 18-49 demographic in terms of assessing the value of distant signals:

- Dr. Gruen's sole focus on the 18-49 demographic excludes 56 percent of the viewing behavior measured by the Program Suppliers' Nielsen viewing study. Ducey R.T. 3. The fact that the majority of viewing of programs on distant signals in the Nielsen viewing study is outside the 18-49 demographic tends to show that cable operators do not choose distant signals for their sole appeal to that demographic. Ducey R.T. 4-5.

- Cable operators in fact value demographic groups other than just 18-49-year-olds. Tr. 7998 (Gruen); Ducey R.T. 3; Johnson R.T. 11. The 50+ and 2-17 age groups heavily view programming such as sports, public television programming, and local programming. Tr. 7998 (Gruen). Cable operators maximize their revenues and profits by including programming that is appealing to all groups in their franchise areas. Ducey R.T. 3.

- Adults age 50 and over account for 27 percent of the total U.S. population and 37 percent of all adults in this country. Tr. 8008-09 (Gruen). A cable operator clearly is going to pay attention to people over 50 in terms of thinking about the kinds of services it is offering on cable. Tr. 8009 (Gruen). Cable operators want to provide programs that appeal to subscribers over the age of 50. Tr. 6112 (Allen).

- Cable operators carry programming services -- such as cable networks, regional sports networks, premium channels, and local channels -- other than distant signals to attract 18-49-year-olds. Tr. 8002-03 (Gruen). Because cable operators already carry these numerous programming services that are attractive to 18-49 viewers it is not necessary for distant signals also to appeal specifically to the 18-49 demographic. Ducey R.T. 3-4.

- Dr. Gruen asserted that the 18-49 demographic is particularly important to cable operators who seek to market ancillary services to subscribers. But he presented no evidence that cable operators would use distant signal programming as part of their strategy for selling ancillary services. Ducey R.T. 4-5. It would be just as logical to conclude that distant signals might be used for some other purpose because other services (such as regional sports networks or cable networks) already adequately attract the 18-49 demographic. Tr. 8886-87 (Ducey).

- Cable operators market ancillary services to subscriber groups other than the 18-49 demographic. Ducey R.T. 5. Among other things, cable operators also are interested in affluent viewers and more educated viewers, who are likely to be purchasers of Internet services. Tr. 7999 (Gruen); Tr. 3243, 3267-69 (Wilson).

- Even in the advertising marketplace, the 18-49 demographic is not the sole group in which advertisers and programmers are economically interested. Ducey R.T. 2-3. Advertisers buy on a variety of bases, and particularly in the local cable advertising market where cable networks come into play, they may be interested in narrower demographics than the mass-market 18-49 group. Ducey R.T. 3.

- Children's programming is an important factor for cable operators, who are clearly interested in attracting families with children as one element of their subscriber base. Fuller D.T. 8-13; Tr. 1311 (Egan); Tr. 6111 (Allen). "[F]amilies are a target for [cable operators]." Tr. 6111 (Allen). Cable operators value parents, who make the decisions about whether subscribing to cable television is advantageous for their children. Tr. 1311 (Egan); Tr. 8220 (Thompson); Fuller D.T. 24 n.21. A particular channel's strong children's line-up would be a factor for parents, most of whom are in the 18-49 demographic, when making cable subscription decisions. Tr. 8013-14 (Gruen).

5. Dr. Gruen's comparison of PTV's viewing minutes in 1992 versus 1999

293. Dr. Gruen presented a comparison of the viewing minutes for PTV in the 1999 Nielsen study versus the results for PTV in the earlier 1992 study in an attempt to show that the audience appeal of PTV programming had declined. Gruen D.T. 33.

294. Dr. Gruen acknowledged on cross-examination that PTV's relative share of viewing had increased substantially from 1992 to 1999, and that his analysis, focused on absolute levels of viewing minutes, did not take account of relative shares in comparison to other program categories. Tr. 7935-37 (Gruen).

295. PTV's household viewing share in the 1990-92 Nielsen study was approximately 4 percent (90-92 CARP Op. 122), and rose to 16.9 percent in 1998 and to 15.1 percent in 1999. PS Exs. 20, 22. Dr. Gruen also agreed that looking at relative shares is a way to avoid distortions created by increased or decreased amount of available programming in different study years. Tr. 7944 (Gruen).

296. Dr. Gruen's comparison of the changes in quarter hours versus viewing minutes for PTV suffers from the same flaw discussed above (*see* ¶¶ 277-282) -- namely, that quarter hours do not measure distribution or availability and thus cannot be compared against viewing minutes in the Nielsen study.

297. But accepting the logic of Dr. Gruen's comparison of viewing minutes between the two years, there still is a <u>5.4 percent increase</u> for PTV viewing minutes (full-year data) from 1992 to 1999. Gruen D.T. 33. In contrast, the similar comparison for Program Suppliers using 1992 and 1999 data is follows:

Program Suppliers' Viewing Minutes 1992 and 1999

1992	25,310,350
1999	5,360,138
Difference	-19,950,212
% Change	-78.82

PS Exs. 20, 22; Gruen D.T. 32; 90-92 Lindstrom D.T. 14 (rev.).

G. The Canadian Claimants' Approach

298. The Canadian Claimants contend that their award should be based on the amount paid in royalties for distant Canadian signals (subject to reduction for the value of U.S. Sports and Program Suppliers programming not included within their claim). Tr. 5324-5327 (Bennett). This approach is not based on the relative marketplace value of different distant signal programming. Tr. 5472-73, 5411-14, 5489-90 (Bennett).

299. David Bennett, testifying on behalf of the Canadian claimants, calculated that carriage of Canadian signals accounted for 3.22 percent of all Basic fees paid by Form 3

systems for actual carriage of distant signals in 1998, and 3.56 percent of all Basic fees paid in 1999. Bennett D.T. 6; Ex. CDN-4-B.

300. At the request of the Panel, Mr. Bennett also presented evidence as to the range of royalties paid for distant signal carriage of Canadian signals for 1998 and 1999. Bennett R.T. 1-5. This range was computed based on alternative assumptions that (a) the Canadian distant signal was always the "first" distant signal, and hence the most expensive, or (b) was always the "last" distant signal, and hence the least expensive. Bennett R.T. 2. Mr. Bennett testified that the CDC Canadian fees generated numbers that he cited in his direct testimony were 2 to 4 percent greater than the absolute minimum and 8 percent lower than the absolute maximum values in the range. Bennett R.T. 4.

301. While recognizing the problems with the fees-generated approach and the fact that it has been repeatedly rejected in past cable royalty distribution proceedings, Tr. 5485 (Bennett), Mr. Bennett testified that the CARP should nevertheless apply the approach in determining the Canadian Claimants' share here, given that they are a unique claimant group and that none of the other studies or methods presented in this proceeding provides a reliable way of determining the value of Canadian programming. Tr. 5371-73, 5488-89 (Bennett); *see also* Calfee R.T. 10-11. The Canadian Claimants are not advocating that Public Television be limited to the amount paid in royalties for PTV distant signals. Tr. 5373-74, 5472 (Bennett).

302. The Canadian Claimants also presented evidence as to the value of Canadian programming (as opposed to U.S. Sports and Program Suppliers programming) on Canadian distant signals. First, Mr. Bennett calculated that approximately 80 percent of the overall content on Canadian signals in 1998 and 1999 was attributable to the Canadian Claimants. Bennett D.T. 6-7. Second, Dr. Debra Ringold presented the results of a survey of Form 3 cable operators that carried Canadian signals, finding that in 1998 and 1999, Canadian programming constituted 59 percent and 58 percent, respectively, of the total value of programming on Canadian signals. Ringold D.T. 2-5, 9-17.

303. The approach of valuing programming categories based on amounts paid in is addressed more fully in the section that follows and in ¶¶ 499-505 of the proposed conclusions of law.

H. Proposed Awards Based on Fees Generated

304. Both the Joint Sports Claimants and the Program Suppliers assert that the Public Television Claimants' award should be limited to the amounts paid by cable operators to carry PTV distant signals. Trautman R.T. 4-5 (proposing fees-generated approach for determining PTV's share); Gruen D.T. 34 ("We see no reason why PBS programming should receive higher payments than PBS's specific contributions to the pool"); Gruen R.T. 26 ("allocation to PTV should approximate the fees generated by PTV stations"). As shown below and in ¶¶ 499-505 there is no factual or legal support for such an approach.

305. Because amounts paid in do not reflect actual marketplace value -- the standard which this Panel must apply in determining shares -- prior distribution

determinations have consistently rejected the argument that royalty awards should be based upon or limited to the amounts paid for carriage of particular distant signals:

- "Because we find that the rate the cable systems pay under compulsory license is not a clear or true reflection of the direct marketplace value of the work, additional considerations, adjusted as appropriate, were used by the Tribunal to determine the marketplace value of the copyright owner's work." *1978 Cable Royalty Decision*, 45 Fed. Reg. 63026, 63036 (Sept. 23, 1980);

- "We also have declined to employ fee-generated formulas, as urged upon us by the Canadians." *1979 Cable Royalty Decision*, 47 Fed. Reg. 9879, 9894 (Mar. 8, 1982);

- "[T]he request [for a fee-generated award] is based upon a methodology which the Tribunal has repeatedly indicated fails to lend itself to an application of the Tribunal's criteria." *1980 Cable Royalty Decision*, 48 Fed. Reg. 9552, 9569 (Mar. 7, 1983);

- "[W]e have rejected fee generation formulas as a mechanical means toward making our allocations." *1983 Cable Royalty Decision*, 51 Fed. Reg. 12792, 12808 (Apr. 15, 1986).

306. The cable royalty award to Public Television never has been limited to the amounts paid in for public television signals. Tr. 5486 (Bennett). Neither the Tribunal nor the CARP has ever adopted "fee generation" as a basis for allocating royalties to PTV or any other major claimant. Tr. 5486 (Bennett). The CARP did not apply the fees-generated model to PTV in the 1990-92 proceeding. 90-92 CARP Op. 114-24.

307. With respect to the Canadian Claimants, the Panel in the 1990-92 proceeding stated that it did not wish to use the fee generation method but that no claimant group in that proceeding objected to the amount of the Canadian Claimants' requested award and there was little other evidence in the record. Tr. 5488-89 (Bennett); 90-92 CARP Op. 141; 61 Fed. Reg. 55653, 55667 (Oct. 28, 1996) (the Panel "did not wish to use a fee generation method" and "tried to distance ourselves" from it, but used the method anyway in determining the Canadian award).

308. In this proceeding, not a single witness suggested that copyright fees are reflective of fair market value. To the contrary, every witness who was asked agreed that copyright fees do <u>not</u> reflect fair market value and that all program categories are undervalued by the compulsory license. Tr. 803-04, 825 (Crandall); Tr. 1200-02, 1210-12 (Hazlett); Tr. 5411-14, 5489 (Bennett); Tr. 10295-98, 10301-02 (Trautman); Tr. 10520-23 (Gruen).

309. The relative costs to cable operators under the compulsory license for different types of distant signals were established by statute in the late 1970s. Tr. 804 (Crandall). The compulsory copyright fee does not vary according to the value that cable operators actually receive. Tr. 807 (Crandall); Tr. 3708-12 (Johnson).

310. The value of a particular distant signal could greatly exceed the amount that a cable operator has to pay for it under the compulsory copyright regime. Tr. 803-04, 825 (Crandall); Tr. 5411-14, 5489 (Bennett); Tr. 3708-12 (Johnson). In addition, the relative value for one particular type of distant signal could be substantially higher than the relative value of another type of distant signal. Tr. 819 (Crandall); Tr. 5489-90 (Bennett). A retransmitted distant PTV station's value relative to its cost could be higher than another distant signal's value relative to its cost. Tr. 7957 (Gruen).

311. In all cases, the value of the imported distant signal exceeds the amount paid in, and that is exactly what one would expect in a free marketplace. Tr. 804-811 (Crandall). "That is what [the] market system does. It generates surplus to the participants." Tr. 811 (Crandall).

312. If a royalty pool were to be allocated among signals according to the value cable operators place on them, the amount of award assigned to the owner of a particular signal could be higher or lower than the amount that the cable operator had to pay to get the signal. Tr. 812, 825 (Crandall); Tr. 10520-23 (Gruen).

313. Because the differential rates at which cable systems pay for distant signal (.25 DSEs for network and non-commercial stations and 1.0 DSEs for independent commercial stations) were set by Congress many years ago, relative DSEs do not provide a basis for determining relative values of signals. Tr. 1213 (Hazlett); Tr. 3708-12 (Johnson); Tr. 10519-22 (Gruen).

314. "The royalty rates were established by Congress and not determined in the marketplace." Gruen R.T. 4. The determinants of the royalty rates paid by cable operators -- DSEs and fees for tiers with distant signals (subscriber fees times subscribers) -- do not reflect marketplace value. Gruen R.T. 4-6.

315. Compulsory copyright fees do not fully compensate copyright owners for their programs. Tr. 6206 (Valenti). "[T]he compulsory license . . . offers to cable systems first class programming at way below realistic marketplace value, but that's the way the Congress decided it." Tr. 6206-07 (Valenti).

316. When allocating royalty funds by relative value, owners of programming on particular signals could receive much more or much less than cable systems paid to retransmit the signals according to the compulsory licensing fees. Tr. 5411-14, 5489-90 (Bennett). Cable operators also could place substantially different values on different distant signals even if they are subject to the same compulsory copyright license fee. Tr. 5489-90 (Bennett).

317. Under the statutory royalty fees paid for different signals, the percentage share of value of a particular distant signal or category of programming may be more or less than the percentage share of royalty fees paid for carriage of that distant signal or category. Tr. 1200-02, 1210-12 (Hazlett); Tr. 811-12 (Crandall); Tr. 10298 (Trautman); Tr. 10521-23 (Gruen). If royalties are based on the relative marketplace value of different distant signals and program categories, a particular category might be entitled to more or less than the

amount actually paid in royalties for that category. Tr. 10295-96, 10301-02 (Trautman); Tr. 10520-23 (Gruen).

318. PTV Exhibit 9-X illustrates a hypothetical example of a cable system carrying distant signals A, B, and C, with varying pay-in rates and relative valuations of those signals. The exhibit illustrates the principle that all distant signals carried by a cable system could be valued, in absolute terms, at more than was paid for them, but in relative terms a particular signal could be awarded less and another signal could be awarded more than was paid in royalties. Dr. Hazlett agreed with this basic principle illustrated by the exhibit. Tr. 1198-203 (Hazlett).

319. PTV Exhibit 10-X removes one of the distant signals shown on PTV Exhibit 9-X and illustrates the principle that, even though the total pool of royalties decreased because of the withdrawal of the signal, that withdrawal could nevertheless result in an increase in the award amount for one of the remaining signals because its value increased relative to the other signal(s) remaining in the pool. Witnesses that were shown this exhibit agreed with this basic principle. Tr. 1210-12 (Hazlett); Tr. 10533-37 (Gruen).

320. PTV Exhibit 10-X also demonstrates the conceptual flaw in Dr. Gruen's argument (Gruen R.T. 26) that there is no economic or marketplace reason why PTV should receive more dollars than the amounts paid for it. The exhibit illustrates the point that if there is only one signal in the distant signal universe, then the royalties going to that signal would equal the amount cable operators paid to carry it; if, however, a second, different type of signal is added, then it is possible that, because the size of the royalty pool has increased, the award to the first signal would increase in both relative and absolute terms, given the relative valuations of the two signals. Tr. 10533-37 (Gruen).

321. Because of the sliding scale used in determining royalties, in which cable operators pay royalties based on their total number of DSEs, it is not possible to determine a precise amount that was paid for any given distant signal. Johnson D.T. 8; Bennett R.T. 1-2; Tr. 1142-43 (Hazlett); Tr. 3709-11, 3716-18 (Johnson); Tr. 5479-80 (Bennett). If a given signal is assumed to be the "first" distant signal, for instance, the amount of royalties paid for it would be higher than if the signal is assumed to be the "last." Kessler D.T. 14-17; Bennett R.T. 1-2; Tr. 3715-17 (Johnson); Tr. 6511 (Kessler); Tr. 7132-35 (Martin).

322. It is possible to compute a range of royalties paid for any given distant signal (or category of signals), but there is not a single exact number for those royalties. Johnson D.T. 23-25; Bennett R.T. 1-5; Tr. 5479-80 (Bennett); Tr. 9139-40 (Johnson).

323. As discussed at ¶¶ 66-68, more than 20 percent of the Basic Fund consists of fees paid by systems not carrying any distant signals at all, and about another 5 percent is attributed to fees paid by Form 1 and Form 2 systems that are not based on actual carriage of particular signals. Tr. 10537 (Gruen). These fees cannot be identified with the carriage of any particular claimant group. Tr. 1196 (Hazlett).

I. Evidence Addressing the Music Claimants' Share

1. The Music Claimants' claim

324. The Music Claimants, representing the performing rights licensing organizations American Society of Composers, Authors and Publishers (ASCAP), Broadcast Music, Inc. (BMI), and SESAC, Inc., presented a study purporting to show that the quantity of music in programming retransmitted on distant signals increased from 1991-92 to 1998-99. Tr. 4233-75 (Krupit); Tr. 4439-85 (Boyle). The Music Claimants also presented testimony purporting to show that music in programming on distant signals became a more important element of the programming from 1991-92 to 1998-99. Tr. 4138-76, 4225-26 (Lyons). The Music Claimants thus claim that their share should increase from a benchmark of the 4.5 percent that they received for 1991-92 as a result of settlement negotiations.[28]

325. The Music Claimants' time study purported to show that in 1991-92 distant signal programming had 19.42 minutes of music per hour within a confidence interval that gave a range of 18.82 min./hour to 20.03 min./hour. Boyle D.T. 16. For 1998-99, the Music study purported to show that distant signal programming had 22.02 minutes of music per hour within a confidence interval that gave a range of 21.3 min./hour to 22.66 min./hour. Boyle D.T. 16.

2. Flaws in the Music Claimants' time study

326. The Music Claimants' time study is flawed because it focuses only on increases in raw minutes of music use and does not take into account the relative contributions of all claimants to the value of distant signal programming. Schink R.T. 8-9.

327. The Music Claimants' time study is also flawed because it measures only raw minutes of music usage and does not distinguish between the different types of music uses, such as feature, background, and theme. Schink R.T. 10. The Music Claimants testified

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[28] As Dr. George R. Schink points out in his rebuttal testimony for JSC, use of a settlement share as a benchmark is improper because (i) the 1991-92 settlement share was not based on an analysis of broadcast license fees and total broadcasting expenses as the last litigated share was in 1983, and (ii) other factors entered into claimants' decisions to settle with the Music Claimants so that the 4.5 percent settlement share does not reflect a relative market valuation of contribution of music to distant signal programming. Schink R.T. 7-8. Furthermore, the settlement agreement with the Music Claimants states specifically that it is not to be used as precedent or for any purpose other than settlement. *See* Joint Motion for Declaratory Ruling Concerning the Benchmark for the Music Award, No. 2001-8 CARP CD 98-99 (Jan. 16, 2003). Reliance on such a settlement agreement as substantive evidence in this proceeding is contrary to the express terms of the agreement as well as general policy considerations that would be undermined if parties could settle one proceeding and later rely on that settled amount as a purported benchmark of marketplace value in a subsequent litigated proceeding.

that when paying copyright holders, the performing rights organizations value different types of music use differently. Tr. 4492-95 (Boyle).

328. A music use study presented in the 1989 cable royalty proceeding by the Music Claimants, before they settled in that proceeding, showed 21.80 minutes of music per hour on distant signals, suggesting that there was no consistent upward trend in music use from 1989 through 1998-99. Schink R.T. 10-13.

329. Other claimants pointed out that the Music Claimants' music use study had numerous design and implementation problems, including inconsistent definition of the top station group, failure to randomly sample the smaller stations in the lower station groups, failure to select a random sample of distant signal stations designed to represent all distant signal stations, the fact that the top stations in the 1991-92 study were all independent stations, and failure to randomly sample the seven dates each year on which music use was measured. Schink R.T. 11; Tr. 4783-885 (Boyle).

330. John Wilson testified for Public Television that his experiences at PBS since 1994 coincide with the results of the Section 118 music use study showing flat music use in public broadcasting. Wilson R.T. 5. Mr. Wilson further testified that that the flat trend of music use observed through 1996 continued through 1998 and 1999. Wilson R.T. 5.

3. Music license fees relative to programming expenses

331. Dr. George Schink testified for the JSC that the best method for determining the Music Claimants' share of cable royalties is to compare the amounts they receive from broadcasters and cable networks with the total programming expenses of the same broadcasters and cable networks, which was the general concept adopted by the CRT in the 1978 cable royalty distribution proceeding. Schink R.T. 14.

332. In 1998, the Music Claimants negotiated in the market music licensing fees that amounted to 1.49 percent of total commercial broadcast television programming expenses and 2.33 percent of the particular expense category of performance rights (music licensing fees and broadcast rights). Schink R.T. 14-17. It is reasonable to conclude that cable networks' music license fees would amount to an average of 2.07 percent of the cable networks' 1998-99 total programming expenses. Schink R.T. 17-20.

4. Specific evidence of the value of music in PTV programming

333. In the Section 118 arbitration proceeding to establish the license fees that public broadcasting would pay to ASCAP and BMI for the public performance of copyrighted musical works by public television and radio stations, the Copyright Arbitration Royalty Panel set public broadcasting's annual fee at $5,443,000 for 1998 through 2002, and the Librarian of Congress accepted this determination. Wilson R.T. 3; Final Rule and Order, Docket No. 96-6 CARP NCBRA, 63 Fed. Reg. 49823, 49825, 49835-36 (Sept. 18, 1998) (entered in this proceeding as PTV Demo Ex. 4). The annual fee set by the Panel was meant to be a marketplace fee and was not discounted because of public broadcasting's non-commercial nature. 63 Fed. Reg. at 49825, 49834-35.

334. In the Section 118 proceeding to determine public broadcasting's 1998-2002 music licensing fees, the Panel looked at music use by public broadcasting to determine if its revenues-based formula should be adjusted. Wilson R.T. 5; Report of the Panel, Docket No. 96-6 CARP NCBRA, at 32. The Panel found and the Librarian of Congress accepted that music use on public broadcasting remained constant from 1992 through 1996 and indeed had remained constant since 1978. Wilson R.T. 5; 63 Fed. Reg. 49831-32. The Panel accepted "Public Broadcasters' conclusion that overall music usage has remained constant in recent years" and found that it was "reasonable to presume that overall music usage by Public Broadcasters has remained substantially constant since 1978." Wilson R.T. 5; Report of the Panel, Docket No. 96-6 CARP NCBRA, 32 (July 22, 1998) (entered in this proceeding as PTV Demo Ex. 5).

335. The Section 118 annual music licensing fee was 0.28 percent of public broadcasting's[29] 1996 revenues of $1,955,726,000. Wilson R.T. 3; Report of the Panel, Docket No. 96-6 CARP NCBRA, 26.

336. The annual music licensing fee set in the Section 118 proceeding was 0.26 percent of public broadcasting's average 1998-99 revenues of $2,081,442,000. Wilson R.T. 3-4. Even subtracting revenues from federal and state governments, public broadcasting's music license fee as a percentage of average 1998-99 private revenues (non-tax-based revenues) of $1,238,243,000 was 0.44 percent. Wilson R.T. 4.

337. Public broadcasting's music licensing fee also may be viewed as a percentage of programming expenditures. Wilson R.T. 4. Public broadcasting's music fee as a portion of its programming expenditures[30] was 0.59 percent for 1998 and 0.56 percent for 1999. It is appropriate to assume that Public Television's share of the total music licensing fee is proportional to its share of total programming expenditures. Wilson R.T. 4.

5. The JSC approach of calculating individual claimants' music shares

338. Dr. George Schink, testifying for the JSC, presented a formula to calculate JSC's music share based on the ratio of music license fees to total programming expenses. Tr. 8715-17 (Schink); Schink R.T. 23-25 & n.30. The formula could be used to calculate the relative music shares for any two claimants or all claimants if one had similar measures of music intensity. Tr. 8717 (Schink).

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[29] Public broadcasting's music license covers both public television and public radio and is derived from combined revenues. If one makes the conservative assumption that the fee for public television is proportional to the amount of revenues it receives, then the percentage calculations made by dividing license fees by revenues are applicable to public television. Wilson R.T. 3 n.3.

[30] In 1998, public television and public radio had combined programming expenditures of $921,388,463, and in 1999, combined programming expenditures were $974,278,357. Wilson R.T. 4.

339. Using that formula and assuming (1) that commercial broadcasting's ratio of music license fees to programming expenses in 1998-99 was 1.49 percent, (2) that PTV's ratio of music license fees (determined at a marketplace rate; *see* ¶ 333, *infra*) to programming expenses in 1998-99 was 0.59 percent, and (3) that PTV is awarded a share of 12 percent of the Basic Fund, PTV would have to pay only 5.17 percent of whatever the Panel were to decide to award to Music. Tr. 8717-22 (Schink); PTV Demo Ex. 8. Thus, if Music were to be awarded 2 percent of the Basic Fund, under Dr. Schink's formula and these assumptions, PTV would have to pay 5.17 percent of that 2 percent.

V. PUBLIC TELEVISION AND ITS PROGRAMMING

A. Overview of Public Television

340. The vast majority of public television stations across the country are members of PBS. Wilson D.T. 6. Roughly 350 public television stations operate in communities throughout the United States and its territories. Wilson D.T. 6. There is a tremendous diversity among these stations in terms of their ownership, their mission, and their programming content. Wilson D.T. 6. Some are community licensees governed by a board of trustees from the community; others are state licensees owned by a state board of education or other state agency; still others are owned and operated by universities or colleges; and other stations may be owned by cities, counties, or local school districts. Wilson D.T. 6.

341. PBS offers a host of programming services on behalf of its members. Wilson D.T. 6. It provides financial support for new programming, develops programming initiatives and strategies, and distributes programming to member stations via satellite from PBS's facilities in Alexandria, Virginia. Wilson D.T. 6. PBS does not itself produce programs, but rather provides financial support to programming developed by independent producers and individual public television stations. Wilson D.T. 6. PBS also engages in significant research and promotional activities to support public television programming. Wilson D.T. 6.

342. PBS member stations remain entirely autonomous in their programming decisions. Wilson D.T. 6. Each station is free to define its own particular focus, to decide on its mix of programming, and to formulate a schedule for its programs. Wilson D.T. 6. Many public television stations have created distinctive identities for themselves in local communities across the country, and as a result one finds a very wide range of programming types and scheduling diversity on different public television stations. Wilson D.T. 6.

343. Local stations obtain programming directly from PBS through the National Programming Service (NPS) and other PBS programming services. Tr. 2999-3000 (Wilson); Wilson D.T. 6. Aside from the programming distributed by PBS, local PTV stations acquire programming directly from domestic and international distributors, they produce their own programming, and they acquire some programming directly from independent producers. Tr. 3002-03 (Wilson). Local stations spend over 50 percent of their programming budgets on locally produced and acquired programming. Tr. 3004 (Wilson); Wilson D.T. 24.

344. National and regional services such as American Public Television, Central Educational Network, and National Education Telecommunications Association make programming available to public television stations on an ongoing basis. Wilson D.T. 8-9. Local stations also produce their own original programming for broadcast. Wilson D.T. 9.

345. Public Television programming is extremely expensive. For PBS to offer its member stations the National Programming Service, which includes a particularly high number of hours of first-run programming, it cost $144 million in 1998 and $154 million in 1999. Wilson D.T. 38. These figures are solely the budgets for programming aggregated by PBS and distributed to its member stations through the NPS. PBS's entire national programming budget -- the amount spent on all programming distributed by PBS -- was $355 million in 1998. Tr. 3173-74 (Wilson). The total programming expenditures by local PTV stations, including costs not only for PBS's national programming but also locally produced and acquired programming, were $743 million in 1998 and $772 million in 1999. Wilson R.T. 6.

346. The creators of public television programming -- including local public television stations and independent producers such as Sesame Workshop -- produce programs primarily by attracting financial backing from PBS as well as foundations and corporations. There are many more requests for funding than can be met by PBS's limited resources, and producers of public television programming constantly labor under the cloud of an uncertain financial future. Wilson D.T. 36-37. Funding pressures are a constant concern even for successful, well-established programs. Wilson D.T. 36. Without being able to rely on advertising dollars, public television by its very nature has no programming that is free from funding pressures because it is a "commercial success." Wilson D.T. 38. Local public television stations, too, face constant pressure, and local stations often must fund their own initial program development and production costs. Wilson D.T. 36.

347. The largest single source of funding for Public Television is the voluntary contributions made by public television viewers across the country. For instance, Public Television raises more money in voluntary contributions from subscribers than it receives in federal support from the Corporation for Public Broadcasting.[31] In FY 1998, some 4.6 million households nationwide made voluntary contributions to Public Television. In the aggregate, these contributions amounted to roughly $341 million, or an average of about $73 for each contributing household. Similarly, in FY 1999, 4.7 million households made voluntary contributions to Public Television, totaling approximately $373 million, or an average of about $77 per contributing household. Wilson D.T. 35.

348. Producers of programming shown on PBS stations receive corporate underwriting support to produce their programming. Tr. 3103-06 (Wilson). In 1998 and 1999, underwriting amounted to approximately one third of the money available to produce

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[31] The Corporation for Public Broadcasting (CPB) is a private, non-profit entity separate from PBS. Tr. 3008 (Wilson). CPB disseminates funds from Congress to individual stations in the form of community service grants. Tr. 3008 (Wilson).

programming. Tr. 3107 (Wilson). PBS acknowledges underwriting with announcements before and after programs. Tr. 3104-05 (Wilson). Underwriting announcements are not advertising; they simply identify the underwriters. Tr. 3103-04 (Wilson). Underwriting announcements may last no longer than one minute total each at the beginning and end of a program. Tr. 3105 (Wilson).

B. The National Program Service and Other PBS Programming Services

349. The National Programming Service (NPS) is the primary programming service through which PBS distributes programming to its member stations. Wilson D.T. 4. NPS provides the full variety of public television programming, including informational, fictional, performance, and children's programming, to the 350 PBS member stations. Tr. 2999-3000 (Wilson); Wilson D.T. 4. The NPS has three main components: prime-time programming, children's programming, and news programming, primarily THE NEWSHOUR. Tr. 3009 (Wilson).

350. In 1998 and 1999, the programming services that PBS offered stations in addition to the NPS included two fully packaged, 24-hour channels (PBS Kids and PBS YOU), and PBS Plus and PBS Select, which provided stations access to a wide variety of additional PBS programs. Wilson D.T. 4. PBS's various programming services provided a total of more than 4,600 hours of programming to member stations in each of 1998 and 1999. Fuller R.T. 8. That figure includes more than 2,000 hours of original, first-run programming each year. Wilson D.T. 17.

351. Programming distributed by PBS comes entirely from the work of others; PBS cannot produce programming itself. Tr. 2998 (Wilson). In 1998 and 1999, the public television programming distributed by PBS to its members came from a variety of sources. Tr. 2998 (Wilson); Wilson D.T. 7. More than 60 public television stations produced programs distributed by PBS in 1998 and 1999. Also in 1998 and 1999, three-quarters of PBS's programming involved independent producers, both unaffiliated independent producers, such as Raymond Henderson and Tony Buba, and established independent producers, such as Ken Burns, David Attenborough, Hedrick Smith, Henry Louis Gates, Jr. and Bill Moyers. Wilson D.T. 7-8.

352. Children's programs that aired in 1998 and 1999 included ARTHUR, BARNEY & FRIENDS, and WISHBONE (which were launched after or at the end of the 1990-92 time period of the last cable royalty proceeding), as well as decades-old favorites such as MR. ROGERS NEIGHBORHOOD, READING RAINBOW, and SESAME STREET. Wilson D.T. 20. In 1998, PBS debuted TELETUBBIES and in 1999, PBS debuted DRAGON TALES. Wilson D.T. 20.

353. PBS's children's programming includes a particular focus on school-age children. In 1999, ZOOM was revitalized and added again to PBS's line-up, and in 1998 and 1999, BILL NYE, THE SCIENCE GUY made science exciting for school-age children. Wilson D.T. 20. In 1998 and 1999, the WISHBONE series continued to introduce elementary school children to the classic literature of Shakespeare, Dickens, and Twain through the eyes and adventures of a smart little dog named Wishbone. Wilson D.T. 20.

354. In 1998 and 1999, IN THE MIX, an award-winning broadcast program produced by, for, and about teens, dealt with critical issues such as substance abuse prevention, teen immigrants, racism and bias crimes, and conflict resolution among teenagers. Tr. 3048 (Wilson); Wilson D.T. 20-21. PBS also teamed up with Black Entertainment Television in presenting SAFE NIGHT USA, a program celebrating young people that connected thousands of communities holding simultaneous Safe Night parties in a national effort to educate teenagers on how to avoid situations that can lead to violence. Wilson D.T. 21. It is also important to point out that in 1998 and 1999 young adults also were viewers of programs as diverse as NOVA, MOTORWEEK, and THIS OLD HOUSE. Wilson D.T. 21. (PBS's children's programming is further discussed below at ¶¶ 365-371, 400-408.)

355. PBS programming presents American history through, among other programs, its signature series THE AMERICAN EXPERIENCE, which in 1998 and 1999, presented two mini-series -- one on noted American generals, including General Douglas MacArthur, and another on American presidents, including the two-night presentation, REAGAN. Wilson D.T. 21. PBS programming showed world cultures and world history in 1998 and 1999 through limited series like THE FACE OF RUSSIA, IN THE FOOTSTEPS OF ALEXANDER THE GREAT, and THE U.S.-MEXICAN WAR. Wilson D.T. 21.

356. PBS programming explores the latest developments in science, medicine and technology in in-depth ongoing series such as NOVA and SCIENTIFIC AMERICAN FRONTIERS. Wilson D.T. 21. Specials in 1998 and 1999 included INTIMATE STRANGERS: UNSEEN LIFE ON EARTH, LIFE BEYOND EARTH, and two programs hosted by PBS Online personality Bob Cringely: PLANE CRAZY, in which he sets out to build and fly an experimental airplane in 30 days, and NERDS 2.0.1: A BRIEF HISTORY OF THE INTERNET. Wilson D.T. 21-22. PBS programming covered natural history in its series NATURE as well as limited series such as THE LIVING EDENS, SAVAGE EARTH, and WILD INDONESIA. Wilson D.T. 22.

357. PBS programming brings classics of world literature to the screen through EXXONMOBIL MASTERPIECE THEATRE, which in 1999 included two works of Charles Dickens, GREAT EXPECTATIONS and OUR MUTUAL FRIEND. Wilson D.T. 22. PBS programming features the performing arts on GREAT PERFORMANCES, which includes ballet, drama, modern dance, musical theater, opera and orchestral performances. Wilson D.T. 22. Other live or taped special events on Public Television in 1998 and 1999 included the CINCINNATI POPS HOLIDAY CONCERT, COLORADO SYMPHONY: JAZZ FOR ORCHESTRA, CLEVELAND ORCHESTRA IN PERFORMANCE, as well as numerous musical performances presented on LIVE FROM LINCOLN CENTER. Wilson D.T. 22.

358. In 1998 and 1999, PBS also presented a wide array of other performance programming, including a tribute to Muddy Waters from KENNEDY CENTER PRESENTS, a gospel concert featured on IN PERFORMANCE AT THE WHITE HOUSE, numerous operas from THE METROPOLITAN OPERA PRESENTS, and western and folk music on AUSTIN CITY LIMITS. Wilson D.T. 22. Limited series in 1998 and 1999 included YO-YO MA: INSPIRED BY BACH, a groundbreaking new series of over six hours of J.S. Bach's music as interpreted by artists in various fields -- ice skating, dance, architecture, and kabuki, to name a few. Wilson D.T. 22. GREAT COMPOSERS in 1998 and 1999 presented

biographical music documentaries on six of the world's most popular and enduring classical composers: Beethoven, Mahler, Mozart, Puccini, Tchaikovsky, and Wagner. Wilson D.T. 22.

359. PBS presents a large number of award-winning programs offering news analysis and public affairs. Wilson D.T. 23. THE NEWSHOUR WITH JIM LEHRER, WASHINGTON WEEK, RELIGION & ETHICS NEWSWEEKLY, THINK TANK WITH BEN WATTENBERG, and FRONTLINE were among the important programs in this category during 1998 and 1999. Wilson D.T. 23. Informational programming on Public Television at that time also included a large number of "how-to" programs, such as BAKING WITH JULIA, ROUTER WORKSHOP, NEW YANKEE WORKSHOP, THIS OLD HOUSE, and HANDYMA'AM, WITH BEVERLY DEJULIO. Wilson D.T. 23.

360. Public television programming also has significant regional and ethnic diversity. Wilson D.T. 23. PBS presents an unprecedented range of programming by and about many different ethnic groups and regions throughout the country, including in 1998 programs such as TUSKEGEE, ALABAMA, LIVING IN BLACK AND WHITE, about that community's pivotal role in national issues of voting rights and school desegregation; and IRISH IN AMERICA, the story of Irish-Americans, from emigration to assimilation; and in 1999 one-of-a-kind programs such as I'LL MAKE ME A WORLD, a three-part series from Blackside, Inc., presenting inspiring stories of talented African-American writers, poets, painters, sculptors, musicians, dancers, filmmakers, and actors. Wilson D.T. 23. Another highlight in 1999 was AMERICAN MASTERS' presentation PAUL ROBESON, HERE I STAND, chronicling the life and achievements of one of the most visible, influential, and admired African-Americans of his time. Wilson D.T. 23.

361. Examples of 1998 and 1999 PBS programming featuring particular regions of the United States include THE CASTRO from KQED, a profile of San Francisco's famous neighborhoods; THE ROCKIES BY RAIL from Oregon Public Broadcasting; DELTA JEWS from Mississippi Public Television; and SHAKER HEIGHTS: THE STRUGGLE FOR INTEGRATION from WVIZ in Cleveland. Wilson D.T. 23-24.

C. Local/Regional Programming on Public Television

362. About 60 percent of the programming on PTV stations comes from PBS, while the stations acquire or produce programming from diverse sources to fill the remainder of their schedules. Tr. 3000 (Wilson); Tr. 3309 (Fuller). Locally produced programming varies widely with the types of PTV stations and the communities they serve. Tr. 3012-13 (Wilson). "[M]any of our Public Television stations have local public affairs programs that cover the local public policy interest stories of their region or their community. Many do outdoor programming that looks at their local state and area in terms of environment and conservation and so forth. Some do cultural programming. Many have explored the local history of the communities through local programs. So it's a diverse mix of programs that you'll find at the local level in terms of production." Tr. 3013 (Wilson).

363. In August 1999, station WNED-TV in Buffalo, New York, aired reports on hearings on the design of a new Peace Bridge and earlier aired a half-hour special report on

the Peace Bridge controversy. Wilson D.T. 25. "This was a debate on an issue that [had] captured the imagination of thousands upon thousands of people in Western New York, and public broadcasting made it accessible to the entire area," wrote The Buffalo News. PTV Ex. 4 (Editorial, *Public Broadcasting: Worth the Investment*, The Buffalo News (Aug. 11, 1999)). In addition, in 1999 WNED-TV aired three Buffalo Philharmonic concerts, "something you won't see on the Discovery Channel." *Id.*

364. The following are just a few additional examples of locally produced PTV programming of clear regional interest:

- KQED in San Francisco produced THIS WEEK IN NORTHERN CALIFORNIA. Wilson D.T. 24.
- KVIE in Sacramento produced CENTRAL VALLEY CHRONICLES, CALIFORNIA HEARTLAND, and CALIFORNIA'S GOLD. Wilson D.T. 24.
- WTVS in Detroit produced AUTOLINE DETROIT and AMERICAN BLACK JOURNAL. Wilson D.T. 24.
- KAET in Phoenix produced nightly news coverage from the state capital. Tr. 3025-26 (Wilson).

D. Children's Programming on Public Television

365. "[PBS is] an educational broadcasting service, and nowhere is that clearer than in our children's programming." Tr. 3334 (Fuller). PBS offers a diverse mix of children's programs especially designed to be age-appropriate for all age-groups from preschool to teens. Tr. 3043-44 (Wilson); Wilson D.T. 19. One roster of programs is oriented toward preschoolers (ages 2 to 5), another is directed toward elementary school children (ages 6 to 12), and another is for teenagers. Wilson D.T. 19.

366. The children's programs offered by PBS have been designed as educational programs with specific learning objectives in mind. Tr. 3335-36 (Fuller); Wilson D.T. 19. Different PBS children's programs are designed to address the development of physical/motor skills, social/emotional skills, critical thinking/problem solving, language/literacy, cognitive skills, science, life skills, the appreciation and understanding of cultural/social diversity, and music/art appreciation and performance. Wilson D.T. 19 n.9. In addition to teaching numbers and vocabulary, PTV children's programming has social and psychological content focusing on how to help the child understand his or her place in the world, how to get along with others, and how to understand and react when their feelings are hurt. Tr. 3335 (Fuller).

367. In 1998 and 1999, PBS added new and different production values to existing children's series such as SESAME STREET and BARNEY. Tr. 3044 (Wilson). Shows such as SESAME STREET need to reevaluate themselves to ensure that their content fits with their mission and to determine if new segments are needed, such as "Elmo's World," which was added in this time period. Tr. 3045-46 (Wilson). PBS sought to increase

BARNEY's production values by creating a richer set, a better environment, and new characters. Tr. 3046 (Wilson).

368. In 1998 and 1999, PBS also committed itself to identifying and developing new series in the children's area for both pre-school and school-aged children. Wilson D.T. 10. New additions to the PBS children's programming lineup in 1998 and 1999, such as TELETUBBIES, ZOOM, and DRAGON TALES, continued and built on the tradition of providing the best in children's programming. Tr. 3044 (Wilson); Fuller D.T. 9. When PBS debuted TELETUBBIES in 1998, it quickly became one of the most popular and critically acclaimed television shows for preschoolers. Wilson D.T. 20. In 1999, when PBS debuted DRAGON TALES, it also quickly became a popular and critical success. Wilson D.T. 20.

369. In 1999, PBS established an initiative to infuse local content into national programs, specifically in the children's program ZOOM, which is aimed at older children in grades two through four. Tr. 3027, 3047 (Wilson). PBS made ZOOM "customizable" so that local stations could insert local content drawn from their own communities. Tr. 3027-28, 3047-48 (Wilson). "[It is] a great way to really connect students and teachers into the content itself. They could see themselves on the air and really continue a tradition of local children's programming that many markets have left behind." Tr. 3028 (Wilson).

370. PBS pre-school programming was the most popular children's programming in all of television in 1998 and 1999. Fuller D.T. 10. From the 90-91 season to the 98-99 season, PBS's daytime ratings for kids 2-5 increased from 2.2 in 90-91 and 2.9 in 91-92 to 4.0 in 98-99. Fuller R.T. 8.

371. A particular benefit of the children's programming on Public Television is the lack of commercial interruptions. Fuller D.T. 12. A 1999 poll of 400 parents found that four out of five parents believe marketing efforts pressure youths to buy items that are bad for them or too pricey, and two out of three parents want television programmers to be forced to limit youth-targeted ads. Fuller D.T. 12. Furthermore, during the hearings on the 1990 Children's Television Act, Members of Congress and many witnesses expressed substantial concern about the over-exposure of children to advertising on commercial television. Fuller D.T. 12; PTV Exs. 19 and 20.

E. Harm to Public Television from Distant Retransmission

372. While the 1990-92 Panel found that "harm" to copyright holders from distant retransmission was too difficult to quantify and so should not be used as a direct basis for allocating shares (90-92 CARP Op. 20-21), distant retransmission of a public television station nonetheless can and does harm local PTV stations carried by the retransmitting cable operator (Wilson R.T. 2).

373. Cable viewers with both distant and local PTV stations on their system are less likely to donate to the distant station because it is geographically removed and are also less likely to donate to their local station because some of their viewing of its programming is diverted to the distant station's programming. Wilson R.T. 2. The donations that are lost to

local stations and that are not given instead to distant stations could amount to millions of dollars. Wilson R.T. 2.

374. An additional deleterious effect of the importation of a distant PTV signal is that a local signal likely would be forced to change its programming in response to being available to cable viewers in competition with the distant signal to the detriment of the local station's over-the-air viewers. Wilson R.T. 2. The PTV station that is local may drop programming from PBS's National Program Service (NPS) because it sees no point in duplicating programming on the distant signal, even at different times of the day. Wilson R.T. 2-3. Cable viewers then have two differentiated PTV stations available to them, but it hurts PBS, which loses the revenue from the dropped NPS programming, and it hurts over-the-air viewers of the local PTV station because they no longer have access to the dropped NPS programming and they cannot receive the distant signal over the air. Wilson R.T. 3.

VI. BENEFITS TO CABLE OPERATORS FROM PUBLIC TELEVISION PROGRAMMING

A. Carriage of Distant PTV Signals

375. Over 98 percent of all Form 3 cable systems carried at least one PTV signal -- local or distant -- in each year in 1998 and 1999. Tr. 3304 (Fuller). PTV's very high carriage rate by cable systems reflects cable operators' recognition of the value of PTV signals. Tr. 3302 (Fuller).

376. In 1998 and 1999, 23 percent of all Form 3 cable systems chose to retransmit a distant PTV signal. Tr. 3298 (Fuller). In 1998, 515 Form 3 cable systems retransmitted a distant PTV signal and in 1999 that number rose to 532 cable systems. Tr. 3299-300 (Fuller); PTV Ex. 15. These numbers increased somewhat from 1992, when 476 Form 3 cable systems retransmitted a distant PTV signal. Tr. 3299-300 (Fuller); PTV Ex. 15.

377. For approximately half of the more than 500 Form 3 cable systems that retransmitted a distant PTV signal in 1998 and 1999, the distant PTV signal was the system's first or only PTV signal. Fuller D.T. 3; PTV Ex. 15. In other words, in 1998 and 1999, on average approximately 2.1 million cable households, or 3.6 percent of total cable subscribers, received their first public television station as a distant signal. Fuller D.T. 3-4; PTV Ex. 16.

378. Distant PTV signals are invaluable for cable systems that do not have access to local PTV signals. Fuller D.T. 3-4; PTV Ex. 14; Tr. 5403 (Bennett). "A cable operator that failed to provide any public television signal would have a slate of programming lacking an essential element by almost any standard." Fuller D.T. 3.

379. According to one cable executive: "Public Broadcasting is an asset to any television entity. The cultural programming adds credibility and strength to any geographical area. Not only do parents, school administrators, and politicians continually ask for this programming, which can never be substituted, your basic cable subscriber especially has a desire to improve his cultural sphere by the ability to view this channel. Your basic subscriber expects PBS . . . to be part of his basic cable TV package." PTV Ex. 14 (quoting 1983 testimony of James A. Barthman, Owner/Operator of Telluride CableVision).

380. In 1998 and 1999, half of all Form 3 systems carrying at least one distant public television signal also carried a local public television signal. Tr. 3298 (Fuller); PTV Ex. 15. And an average of approximately 4 million cable households, or 6.7 percent of cable subscribers, received one or more distant public television stations in addition to a local station. Fuller D.T. 6; PTV Ex. 16. Indeed, cable systems serving over 1.4 million subscribers chose to retransmit a distant PTV signal even though they already carried two local PTV signals. Tr. 3310 (Fuller); PTV Ex. 16.

381. Cable operators' choosing to bring in additional PTV signals as distant signals shows that they see added value in additional PTV signals. Tr. 3298 (Fuller). "These numbers demonstrate that retransmission of distant public television programming has significant benefit and value for a sizeable number of cable operators and the subscribers they are trying to attract to their systems, even when a local public television station is already available in the market." Fuller D.T. 6. When systems with two or more local PTV stations choose to add yet another PTV station through distant retransmission, it is further proof of the value of different PTV signals. Tr. 3310 (Fuller).

B. The Diversity and Special Attributes of Public Television Programming

1. Non-commercial, educational objectives

382. PTV's primary mission is to educate and inform the public. Tr. 3073 (Wilson). PTV is non-commercial and does not seek to appeal to the masses. In fact, mass appeal is somewhat the antithesis of PTV's mission. Tr. 3074 (Wilson). PTV's motto is "If we don't do it, who will?" -- which expresses the notion that PTV presents educational and informative programming that cannot survive commercially. Tr. 3074 (Wilson); Tr. 9597 (Wilson).

383. PTV does not provide children's programming just to amuse children. Tr. 3334 (Fuller). All PTV children's programming is designed to be educational. Tr. 3335 (Fuller).

2. Content diversity

384. Public Television is a "variety service." Tr. 3013 (Wilson). PTV programming includes children's programming of the highest order, news programming, business and financial programming, investigative documentaries, history documentaries, performance programming, and science programming. Tr. 3013-14 (Wilson). "[I]t's a mix that covers literally almost every genre that you could find on television." Tr. 3014 (Wilson).

385. There are (and were in 1998 and 1999) 170 PBS members that operate approximately 350 stations. Tr. 2996 (Wilson). These members are diverse: some stations are associated with universities, some with communities, and some with states. Tr. 2996 (Wilson). These different types of PBS members lead to differences in programming content. Tr. 2996 (Wilson).

386. Depending on the entity with whom a station is associated, it will have a particular emphasis on its programming directed toward its constituency. Tr. 2997 (Wilson).

For example, a station associated with a university may feature a significant amount of local programming and content drawn from that university. Tr. 2997 (Wilson). A state-associated station likely will have a strong educational component because that is one of the reasons a state funds a station, and a community station may have a different mix of programming given that most of its revenue is drawn from the community it serves. Tr. 2997 (Wilson).

387. Although PBS distributes national programming to its member stations, the stations remain free to choose what they actually carry. Tr. 3000 (Wilson). "Autonomy is the rule in Public Television, not the exception. And somewhat infused in our genetic code is this notion that we weren't going to be yet another network centrally controlled, but the stations would have the ultimate discretion on what they air and when." Tr. 3000-01 (Wilson).

388. Aside from the programming distributed by PBS, local PTV stations acquire programming directly from domestic and international distributors, they produce their own programming, and they acquire some programming directly from independent producers. Tr. 3002-03 (Wilson). Local stations spend over 50 percent of their programming budgets on locally produced and acquired programming. Tr. 3004 (Wilson); Wilson D.T. 24.

389. Because of varied sources of programming and stations' independent natures, there is a great deal of diversity among PTV stations in terms of what they air and when they air it. Tr. 3003 (Wilson).

3. Innovative programming

(a) Unique programming

390. PBS provided more than 2,000 hours of original, first-run programming to its member stations in each year of 1998 and 1999. Tr. 3016 (Wilson); Wilson D.T. 17. "Public Television is a leader in first-run programming." Tr. 3016 (Wilson). PTV provided new, never-before-aired programming across its entire schedule: new children's programs that were on throughout the day and new prime-time programming that included news hours that were "baked fresh daily," as well as new locally produced programming. Tr. 3018 (Wilson).

391. The more than 2,000 hours of original, first-run programming provided by PBS to its member stations did not include and was in addition to the first-run programming produced and acquired by local stations to air in addition to PBS programming. There is a separate amount of extensive first-run programming at the local level. Tr. 3232 (Wilson).

392. There are categories of programming on PTV that are not found on commercial television. Tr. 3018 (Wilson). PTV is a leader in presenting performance programming; commercial television carries few, if any, symphonies, operas, stage plays, or musicals. Tr. 3018-19 (Wilson). PTV also presented music from outside of New York and Washington, including the Cincinnati Pops and the Dallas Symphony Orchestra. Tr. 3038 (Wilson).

393. PTV's documentary programming also would not be found on commercial television, particularly in 1998 and 1999. Tr. 3019 (Wilson). In addition, PTV was the

primary venue for independent films in 1998 and 1999. Tr. 3039 (Wilson). Independent film-making is a long tradition on Public Television, whereas independent films were not available anywhere else on television before the advent of the Independent Film Channel in 1994. Tr. 3039 (Wilson). PTV continues to present independent films that are not available elsewhere and certainly are not available on channels with the same reach and avid viewership as PTV. Tr. 3039 (Wilson).

394. An example of a unique PTV documentary in the 1998-99 time period was David Sutherland's FRONTLINE series THE FARMER'S WIFE, which followed the daily lives of a farm family in the Midwest. Tr. 3019 (Wilson). THE FARMER'S WIFE took Mr. Sutherland six years to make. Tr. 3019 (Wilson). He had to live with the family, film them, and edit years of film down to a series that aired over three nights. Tr. 3019 (Wilson). "I think that's very unusual in the broadcast landscape [and] I think very defining of what Public Television can do." Tr. 3019 (Wilson). While THE FARMER'S WIFE, may be viewed as a precursor to today's reality programming, where cameras are being put everywhere, it was produced before the current reality craze and was produced with a different intent than SURVIVOR and similar programs. Tr. 3019-20 (Wilson).

395. While commercial broadcasters may acquire some programming from independent producers, PTV airs a significant amount of independently produced programming that truly represents diverse voices, views, perspectives, and production styles. Tr. 3245-46 (Wilson).

(b) National programming initiatives in 1998 and 1999

396. Throughout 1998 and 1999, PBS undertook a number of significant new programming and promotional initiatives -- unprecedented in their scope and focus -- that were aimed directly at increasing the attractiveness and visibility of Public Television as a major alternative to commercial television. Wilson D.T. 10.

397. In 1998 and 1999, PBS worked to make sure that its signature or iconic series, such as NOVA, MASTERPIECE THEATER, and FRONTLINE, were as strong and revitalized as possible. Tr. 3026-27 (Wilson). PBS also introduced new content and new mini-series and specials to its line-up in 1998 and 1999. Tr. 3027 (Wilson). PBS focused on bringing to the schedule a greater number of programs that reflect the diversity of our nation. Wilson D.T. 10.

398. The fact that PBS worked to "revitalize" some programming does not mean that it had fallen flat, but rather that Public Television, as do all television programmers, wanted to respond to changing audiences. Tr. 3029-30 (Wilson). "[I]t's less about trying to pump life into something that was flat than it is about making sure that we just don't fall behind." Tr. 3030 (Wilson). With NOVA, for example, the revitalization did not focus on the content itself -- NOVA has a good sense of what is interesting -- but in the way the content was presented and how that fit with the tone and tempo of the television environment. Tr. 3030 (Wilson).

399. PTV always is sensitive to keeping its long-running series up-to-date, but in 1998 and 1999, PBS made revitalization of series a focus of its programming plan and fiscal budget. Tr. 3030-31 (Wilson).

(c) Educational children's programming and the PBS KIDS initiative

400. PTV's children's programming is "unique and unparalleled." Tr. 3334 (Fuller). In fact, PTV is the practically the only available source on television for educational children's programming. Tr. 3335 (Fuller). Educational children's programming just could not make it in a commercial world where it would have to generate advertising revenue. 90-92 Tr. 4230 (Claster).

401. PTV has educational programming directed toward older children, which is particularly hard to find elsewhere on television. Tr. 3336 (Fuller). In 1998 and 1999, there were no alternative sources of the educational children's programming oriented toward older children offered by PTV. Tr. 3050 (Wilson). Shows like ZOOM, WISHBONE, and IN THE MIX provided educational content for older children and thereby filled a void in television programming. Tr. 3050 (Wilson).

402. Cable operators "absolutely" want to appeal to parents with young children. Tr. 1311 (Egan). Families are a segment of the community that cable operators want to attract. Tr. 1311 (Egan). In 1998 and 1999, over 28 percent of U.S. television households had at least one child under the age of 12. Tr. 3340 (Fuller); Fuller D.T. 9. This means that over one-fourth of cable customers "are going to be keen on having the [children's] programming of Public Television." Tr. 3340 (Fuller).

403. PTV children's programming is valuable to cable operators because it creates viewing routines and loyalty unlike any other programming. Tr. 3051 (Wilson). "[I]f you've got a kid or two at home who wants to see ARTHUR, they want to see it. And they want to see it every day. And it becomes a real routine in the household and something that you really expect and rely upon." Tr. 3051 (Wilson).

404. Public television shows such as SESAME STREET, ARTHUR, and BARNEY & FRIENDS have long been recognized by parents as programs that they want their children to watch. Fuller D.T. 8-9. "When it comes to the right shows [for young children], 'Sesame Street' remains the gold standard." Fuller D.T. 9 (quoting Daniel McGinn, Guilt Free TV, Newsweek (Nov. 11, 2002) at 52, 55).

405. Surveys by the Annenberg Public Policy Center of the University of Pennsylvania in 1998 and 1999 found that more than 44 percent of parents believed that public television is the most likely to offer the best programs for children, compared to 38 percent for all of cable and 10 percent for commercial broadcast television. Fuller D.T. 9-10. Parents in the 1998 and 1999 Annenberg surveys listed public television programs BARNEY & FRIENDS, SESAME STREET, ARTHUR, THE MAGIC SCHOOL BUS, BILL NYE, THE SCIENCE GUY, TELETUBBIES, and "the PBS Network" among the top 12 Best

Shows for Kids in either or both years, and in both years, BARNEY and SESAME STREET were the top two programs identified. Fuller D.T. 10.

406. The 1998 Annenberg Public Policy Center survey found that 99.1 percent of PBS's children's programs were "high quality," while only 24.1 percent of broadcast's children's programs and 23.7 percent of basic cable's were "high quality." Wilson D.T. 19. In addition, a 1998 public opinion survey by Bruskin Goldring Research found that 85 percent of adults agree that PBS is "a safe place for children to watch TV." Wilson D.T. 19-20.

407. PTV's children's programming, as is all of its programming, is commercial-free. Fuller D.T. 12-13. When children are watching PTV programming, parents do not have to worry that commercials are going to try to hype expensive toys or sugar-coated cereals. Tr. 3334-35 (Fuller); Tr. 5192-93 (de Freitas). Commercial-free programming is something that cable operators would find valuable in attracting and retaining subscribers. Tr. 1310-11 (Egan); Tr. 5192 (de Freitas).

408. During 1998-99, PBS also developed the new PBS KIDS brand, the umbrella for all PBS children's programs and services. The launch included new animation packaging, heavy on-air promotion, an extensive paid media campaign and major publicity support. The PBS KIDS branding effort was designed to focus a child's awareness on PBS and its member stations as a preferred place for entertainment. PBS KIDS offered a way for children to make tangible a connection with public television that previously had been amorphous and undefined. Tr. 3049 (Wilson); Wilson D.T. 34. "[I]t really created a new face, a new energy around kids." Tr. 3049 (Wilson).

4. Locally produced programming

409. Locally produced programming provides cable operators retransmitting distant signals with yet another benefit: an additional public television station that contains locally produced programming of regional interest that is not necessarily available on the local public television station. Wilson D.T. 24; Tr. 3331 (Fuller). In virtually all cases, cable systems that in 1998 and 1999 carried both distant and local PTV signals carried distant signals from nearby cities. Wilson D.T. 24; Tr. 3331 (Fuller); *see also* NAB Ex. 7. In fact, when a cable system carries more than one PTV signal, the stations' program managers often produce and acquire programming that is different from the other's. Tr. 3324 (Fuller).

410. For example, when the Woodland, California cable system carried both KVIE from Sacramento and KQED from San Francisco, it was able to carry not only two differentiated schedules of national public television programming but also additional local programming of clear regional interest (such as KQED's THIS WEEK IN NORTHERN CALIFORNIA and KVIE's CENTRAL VALLEY CHRONICLES, CALIFORNIA HEARTLAND, and CALIFORNIA'S GOLD). Wilson D.T. 24. As another example, when the Lansing, Michigan cable system carried the local public television station WKAR from East Lansing as well as retransmitted WTVS from Detroit, it was able to add additional local programming from WTVS (such as AUTOLINE DETROIT and AMERICAN BLACK JOURNAL) that was of regional interest. Wilson D.T. 24. Another example of local public affairs programming that is of benefit to viewers of a distantly retransmitted PTV signal may

be found in Phoenix, Arizona, where KAET produced nightly news coverage from the state capital. Tr. 3025-26 (Wilson). The coverage of state politics was valuable to state residents living beyond KAET's local service area. Tr. 3026 (Wilson).

411. When in 1999, WNED-TV in Buffalo, New York, aired reports on a new Peace Bridge as well as three Buffalo Philharmonic concerts, the cable systems in Jamestown, Westfield, Batavia, Fredonia, and Olean, New York, that retransmitted WNED-TV's distant signal benefited from that station's programming that otherwise would not have been available to their subscribers. Wilson D.T. 25. The production of the Buffalo Philharmonic, in particular, would have been very expensive and difficult for a smaller PTV station to accomplish. Tr. 3333 (Fuller). So when smaller cable systems in the region retransmitted WNED as a distant signal they offered their viewers additional diverse content that would not have been available from their local PTV stations. Tr. 3333 (Fuller).

5. Scheduling diversity

412. Public television stations have great freedom to determine their own schedules. Thus, even when PTV stations carry the same programs, the programs are not shown at the same times, and this scheduling diversity is a major reason for cable operators to choose to retransmit a distant PTV signal when they already carry one or more local PTV signals. Tr. 3308-09 (Fuller).

413. When more than one signal is available in a given market, the stations of their own accord will invariably take steps to distinguish their programming mix and schedule from those of other stations. Fuller D.T. 8. In many markets, cable systems carry more than one PTV station, whether they are all local or there is a mix of local and distant, and the stations intentionally "counter-program" by varying their schedules so as not to overlap with the programming of other PTV stations. Tr. 3322-26 (Fuller).

414. Stations also may counter-program as an outgrowth of their varying orientations. For example, an educational broadcaster such as a state licensee may have a very strong commitment to instructional television programming that runs during the daytime when children's programming may otherwise run. Tr. 3024-25 (Wilson). In other cases, two stations may shift the time that a particular program airs so that Program A may air on one station at 8:00 and on the other station at 9:00, allowing viewers a choice of when they want to see the program. Tr. 3025 (Wilson).

415. John Fuller, Senior Director of Research at PBS, presented the results of an informal survey of the amount of duplicate programming on PTV stations in 15 markets where cable systems carried a distant PTV signal in addition to a local PTV signal. Fuller D.T. 8; PTV Ex. 18. In 1999, approximately 91 percent of the time, the two PTV stations on the same cable system aired different programming in the same time slots. Tr. 3318-20 (Fuller); Fuller D.T. 8; PTV Ex. 18.

416. The 1999 survey of programming duplication on two PTV stations on the same cable systems confirmed findings from a survey of 30 systems in 1993 that found approximately 88 percent non-duplication and a 1989 survey of 30 systems that found

approximately 90 percent non-duplication.[32] Tr. 3318-20 (Fuller); Fuller D.T. 7-8; PTV Ex. 18.

417. PTV stations tend not to have schedule duplication for their children's programming. Tr. 3326 (Fuller). PBS feeds to its member stations a block of children's programming from 7 a.m. to 6 p.m. every weekday, but different stations do not carry all of the programming; some break away for adult programming in the middle of the day. Tr. 3326-27 (Fuller). Stations thus have the flexibility to alter the schedules of the children's programming that they do air so as to avoid head-to-head duplication with the children's programming on other PTV stations carried by the same cable system. Tr. 3327 (Fuller).

418. Scheduling diversity is particularly beneficial and valuable in relation to PTV's children's programming. Tr. 3627 (Fuller); Tr. 3024 (Wilson). Some children are in school during the day, some are in day care centers, some can watch programs only in the afternoon, others can watch them only in the morning -- scheduling diversity makes a good program available at different times of the day so that children with varying schedules all have a chance to watch it. Tr. 3627 (Fuller).

419. During 1998 and 1999, PBS had a common carriage initiative in prime time in which stations were required to air the same programming on the same night during prime-time hours, but even within these constraints a station could avoid head-to-head duplication by, for example, airing a program at 10 p.m. that another station aired at 9 p.m. Tr. 3001-02 (Wilson). Common carriage is applicable only to prime-time, which is a minority of the programming day. Tr. 3002 (Wilson). In addition, certain stations were not required to adhere to the common carriage guidelines because either they received a waiver from the PBS Board's membership committee or they were stations following the Program Differentiation Policy, under which they used only one-fourth of PBS national programming. Tr. 3328-29 (Fuller).

420. John Fuller testified that his own experience and research "suggest that repeat telecasts on public television are largely additive." Tr. 3313 (Fuller); Fuller D.T. 5. In other words, even when PTV programming is repeated, more than 90 percent of the viewers of the second airing are new viewers. Tr. 3313-15 (Fuller). "There is a lot of unduplicated audience between airings of the same program." Tr. 3318 (Fuller).

6. Awards and acclaim

421. One way to gauge the value and attractiveness of programming is through awards and critical acclaim. Tr. 5195, 5198 (de Freitas); Tr. 3021 (Wilson). Clearly, Public Television is widely recognized as offering innovative, superior programming that is simply

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[32] All of these figures likely understate the amount of non-duplication, because when the same series was shown at the same time on both PTV stations in a market, it was counted as duplicate programming, even though the programs may have been different episodes of the same series. Tr. 3320-21 (Fuller); Fuller D.T. 7 n.2.

different from the offerings of commercial television. Wilson D.T. 29. Its awards in the television marketplace reflect this. Wilson D.T. 29. The innovative, award-winning programming on PTV reflects a diversity of content and approach that differentiates this programming from what is generally available on commercial television. Wilson D.T. 24-27, 29-30; Fuller D.T. 4-6, 13-17.

422. For its 1998 and 1999 seasons, PBS programs won 16 prime-time Emmy awards for news and documentaries and 15 Daytime Emmys, including BILL NYE's 1999 Daytime Emmy for Outstanding Children's Series. Wilson D.T. 20, 29. In children's programming, PBS's Emmy tallies consistently top all other broadcast and cable networks combined. Wilson D.T. 29; PTV Ex. 3. For its 1998 and 1999 seasons PBS programs also won eight duPont-Columbia University awards and 19 Peabody awards, more than all other broadcast or cable networks combined. Wilson D.T. 29; PTV Ex. 3.

423. Television critics, too, enthusiastically welcomed the watershed events in public television programming in 1998 and 1999. Wilson D.T. 29; PTV Ex. 4. In addition, in 1998 and 1999, public television garnered over 63,000 column inches of editorial coverage in numerous national publications. If paid advertising, this coverage would have been worth over $32 million. Wilson D.T. 29. The riveting mini-series MOYERS ON ADDICTION: CLOSE TO HOME set a new record for coverage in the print media. The column inches devoted to this series would have been worth more than $2.4 million dollars of equivalent advertising space. Wilson D.T. 15.

424. Cable operators would want to have programming sources that garner awards and critical acclaim. Tr. 3021 (Wilson). A cable operator that could not offer an attractive mix of Public Television programming would be lacking the most widely acclaimed programming on television today. Wilson D.T. 29. Critical acclaim helps attract viewers because the more PTV programs are written about and discussed in the media, the more attention they attract and the more viewers seek them out. Tr. 3021 (Wilson).

7. Promotional efforts

425. In 1998 and 1999, PBS undertook a number of promotional activities to heighten the visibility and profile of Public Television programming. Tr. 3029 (Wilson); Wilson D.T. 14. PBS selected numerous high-profile programs to support through paid media, on-air promotion, publicity and special events. Wilson D.T. 14. Promotional support ranged from an ongoing tune-in campaign in TV Guide to ads in Sunday newspaper supplements, weekly magazines (including Newsweek, Time Magazine, U.S. News and World Report, Entertainment Weekly, and People), and the monthly Vanity Fair, as well as tune-in credits on NPR stations and banner ads on selected Internet sites. Wilson D.T. 15.

426. In addition, PBS produced brand spots to demonstrate the value people derive from watching their PBS station. It also developed a special initiative to highlight PBS's wide range of high quality history programs, "History's Best on PBS." PBS used its 30th anniversary as a launching pad for a nine-month public relations campaign, targeting key television press and opinion leaders with great success. Wilson D.T. 15.

427. PTV's promotional activities raised viewer awareness; it made PTV programming more visible and valuable to cable subscribers and thus to cable operators themselves. Tr. 3029 (Wilson).

8. Educational initiatives

428. As a reflection of the obvious contrast between Public Television and commercial programming, several PBS programs include special educational components that allow viewers to register at local colleges and obtain college credit upon the completion of pertinent requirements. In 1998 and 1999, THE CIVIL WAR, ETHICS IN AMERICA, PEOPLE'S CENTURY, RACE TO SAVE THE PLANET, and AMERICAN CINEMA, among a vast array of public television programs, were broadcast in conjunction with college-credit programs at colleges nationwide. In 1998 alone, over 250,000 adult students earned college credits through PBS's televised courses offered by over 1,000 colleges, and to date over six million students have received college credits through PBS courses. Wilson D.T. 18.

429. Also during 1998-99, PBS programs were the most widely used programming in a nationwide educational service sponsored by the cable industry titled Cable in the Classroom. A 1998 Cable in the Classroom survey showed PBS topping all programmers as teachers' leading source for educational video in the classroom. In the 1998 survey, 64 percent of the elementary, middle, and secondary school teachers polled by Cable in the Classroom said that they use PBS programming in their classrooms, a 10 percentage-point increase over PBS's first-place finish in the previous 1996 survey. Wilson D.T. 19; PTV Ex. 9.

C. Avidity for PTV Programming

430. The fact that public television viewers across the country are willing to make voluntary contributions in these amounts is powerful evidence of their avid interest in our programming. Wilson D.T. 35; *see also* Tr. 3022 (Wilson); Tr. 3476 (Fuller). In 1998, 4.6 million households donated $341 million to public television stations and in 1999, 4.7 million households donated approximately $373 million. Tr. 3012 (Wilson); Wilson D.T. 35. Viewers' loyalty is manifest in the willingness of so many of them to make contributions to something that they are, of course, entitled to watch for free. Wilson D.T. 35.

431. Because of the way PTV stations do business, they have a much more direct connection to viewers than do commercial stations; PTV stations seek memberships and seek members' input. Tr. 3244 (Wilson). John Wilson testified that from his experience at PTV station KAET in Phoenix, there is a direct connection with the audience. He testified that stations hear in a significant way from their viewers about what they're doing right and what they're doing wrong, and that viewer response "signals the sort of intense relationship that there can be between Public Television and its audience." Tr. 3244-45 (Wilson).

432. Viewer comments in letters, e-mail, and telephone calls suggest that they are avid about PTV programming. Tr. 3476 (Fuller); Tr. 9779 (Fuller).

433. Children are avid viewers of PTV programming, and their parents -- who make cable subscription decisions -- are aware of this avidity. Tr. 3337-38 (Fuller); Fuller

D.T. 10. Households with children establish very important routines based on viewing PTV's weekday children's program line-ups. Tr. 3022 (Wilson). PBS is aware of children's avidity for its programming from surveys of and comments from parents over the years and from the fact that children watch the programming. Tr. 3337-38 (Fuller); Tr. 3022 (Wilson).

434. In 1998-99, PBS pre-school programming was the most popular children's programming in all of television. Fuller D.T. 10. PBS's daytime rating for children 2-5 was 4.0 in 1998-99, which was an increase from 2.2 in 90-91 and 2.9 in 91-92. Fuller R.T. 8.

435. "[I]n prime time, the fans of MASTERPIECE THEATER or WASHINGTON WEEK IN REVIEW or Jim Lehrer's [NEWS HOUR] fans are notable and regular viewers, who really do appreciate that sort of ability to have that sort of programming available to them regularly." Tr. 3022 (Wilson).

436. PTV also presented the results of a nationwide evaluative survey of that measured their intensity of interest for various programming and showed that viewers care more about programming on public television despite its relatively lower viewing ratings. Fuller R.T. 3-4. The study showed that PBS programs had more "appeal" to viewers and that higher rated commercial programming, such as police dramas, game shows, and comedies, had the lowest appeal. Fuller R.T. 4. The study also showed that PBS programs had the most "impact" on viewers (the programming taught viewers something and touched their feelings) and that, again, higher rated programming had the lowest impact. Fuller R.T. 4.

D. Comparable Cable Network Programming

437. "The increased entry of 'look-alike' cable networks, rather than eroding PTV's share of the distant signal marketplace, with at least equal likelihood reflects the perception of a valuable niche market established by PTV with potential for yet further expansion." 90-92 CARP Op. 123.

1. So-called "look-alike" channels provide pale imitations of PTV programming

438. In 1998 and 1999, specialty cable channels, with names such as "Discovery Channel," "Arts & Entertainment," "The Learning Channel," "Animal Planet," and "The History Channel," attempted to compete in a number of the programming niches traditionally occupied by Public Television by offering facially similar programming. Tr. 3034 (Wilson); Wilson D.T. 25. Public television, however, is unique among these look-alike channels in that each public television station offers a mix of the best of each programming genre represented by the look-alikes. Wilson D.T. 25. On the other hand, specialty cable channels are "wonderfully discrete and narrow in terms of what it is they each seek to present." Tr. 3034 (Wilson).

439. One would have to aggregate the specialty channels to create the line-up of various genres that can be found on a single PTV channel. Tr. 3034-35 (Wilson). "[C]ertainly, Public Television's recipe [for combining programming genres] is not exactly the same as the recipe of any of these [cable networks]." Tr. 8217 (Thompson). This gives PTV the advantage that its diverse programming promotes sampling; it draws viewers with a

number of different interests and from a number of different audience segments. Tr. 3035 (Wilson).

440. The specialty cable channels have to fill around-the-clock schedules with programming related only to their niches, such as science, culture, education, nature, or history. This inevitably leads to inclusion of programming that is not always the most recent or of the highest quality. Public television, on the other hand, offers programming in a multitude of genres, allowing it to select the "best of the best" programming in each area. Wilson D.T. 26.

441. Because PTV has so many hours of new programming available to it, it does not, therefore, have to repeat and recycle programming as frequently as specialty cable channels. Tr. 3043 (Wilson). Also, because PTV isn't airing, for example, history all the time, it allows PTV to focus on the programming in each particular area to ensure that it is the best of its type. Tr. 3043 (Wilson).

442. "Public Television offers more first-run programming than any one of these individual [specialty cable] channels does." Tr. 3036 (Wilson). In addition, PTV stations around the country produce and acquire their own unique programming so that there is a great diversity of content among them, whereas cable channels are by their very nature national services with no specialized local or regional content. Wilson D.T. 24-25; Fuller D.T. 13-17.

443. Public television is known not only for its science programming or cultural programming or educational programming or nature programming or history programming. It is known for providing an immense variety of the highest quality programming from these genres and more. Tr. 3035-36 (Wilson); Wilson D.T. 26. Public Television can be very discriminating about the types of programs it presents. Tr. 3036 (Wilson). Even in the face of increasing competition from specialty cable channels, Public Television remains the only service to offer the "best of the best" programming in many areas. Wilson D.T. 17. Furthermore, cable network channels such as Comedy Central and the Weather Channel may be said to "compete" with Public Television only in the "vague, casual" sense that they "had some programming that could potentially be appealing to the same tastes and desires that PBS has." Tr. 8211-12 (Thompson).

444. Public Television's children's programming, in particular is unique in all of television, with educational programming designed for specific age groups, including older children. *See* ¶¶ 366-369, 401. In 1998 and 1999, the cable network channel Nickelodeon carried Nick Jr., which was children's programming directed to preschoolers, but the programming was amusement- and entertainment-oriented, not educational. Tr. 3336-37 (Fuller). During this time period, Nick Jr. was just making some early steps in the direction of offering truly high-fiber preschool programming. "But even then it was a small amount. It was really stingy. Public Television offered, and offers still, the largest sort of line-up of this caliber [of educational] programming, uninterrupted." Tr. 3049-50 (Wilson).

445. PTV offers programming genres for adults that are not easily found elsewhere on television. Tr. 3339 (Fuller). Even with the emergence of more cable networks

carrying some of PTV's more popular genres, there still is not much public affairs programming available outside of PTV. Tr. 3339 (Fuller). PTV is the master of public affairs, news, and documentaries. Tr. 3339 (Fuller). Others rarely show similar programming, but PTV provides public affairs programming on a regular basis. Tr. 3340 (Fuller).

446. Commercial channels have programs that pose as documentaries, but many are very shallow. Tr. 3375 (Fuller). Documentaries such as THE FARMER'S WIFE or AFRICANS IN AMERICA that took years to get funded, researched, filmed, produced and on the air are examples of the kinds of programming that simply are not available on specialty cable channels. Tr. 3039-40 (Wilson).

447. PTV has performance programming that is not available elsewhere. By 1998 and 1999, A&E had stopped showing classical music works and operas, while PTV maintained a rich line-up of everything from Broadway productions to live symphony broadcasts to pop and rock music. Tr. 3036-38 (Wilson).

448. Independent film-making is a long tradition on Public Television, and independent films were not available elsewhere on television before the advent of the Independent Film Channel, which launched in 1994 and which only reached an average of 13 million TV households in 1998-99. Tr. 3039 (Wilson); PTV Ex. 2R. PTV continues to present independent films that are not available elsewhere and certainly are not available on channels with the same reach and viewer avidity as PTV. Tr. 3039 (Wilson).

2. PTV's program expenditures greatly exceeded those of cable channels

449. The large volume of documentary and public interest programming on Public Television each year is particularly expensive because these types of programming can require exhaustive, expensive research and background work and may need years of time and investment to bear fruit. PBS is in fact unique in the amount of money it spends on program research -- research that commercial television will not support on any sort of regular basis. Wilson D.T. 38.

450. As one example, PBS and CPB provided substantial financial backing to AFRICANS IN AMERICA. There were six years between initial funding and broadcast of the series that was the first documentary series to examine the history of slavery in America. This landmark documentary, filmed across 12 states and three continents, examined the historical roots of some of today's most disturbing social problems. Wilson D.T. 38.

451. In 1998, the total programming expenditures by PTV stations -- expenditures for locally produced programming, locally acquired programming, and PBS national programming -- were $743 million, and they rose to $772 million in 1999. The programming budgets of specialty cable channels with some programming similar to PTV's were but fractions of the amounts spent on programming by PTV stations. PTV's 1998-99

total programming expenditures were nearly three times those of Nickelodeon,[33] five times those of Discovery[34] and A&E,[35] and more than seven times those of TLC.[36] Wilson R.T. 6; PTV Ex. 1-R.

452. The differences in PTV programming expenditures ultimately reflect a difference in the program content and the nature of what PTV offers in comparison to these look-alike channels. PTV invests far more heavily in innovative, first-run programming and thus continues to differentiate itself from the cable networks that provide programming content in some of the typical public broadcasting genres. Fuller D.T. 10.

3. So-called "look-alike" cable networks obtained increasingly higher license fees

453. Despite the fact that "look-alike" cable channels generally carry only one genre of programming available on PTV and despite their generally lower quality programming, the cost to cable systems for these specialty channels increased in the 1990s at a greater rate than the cost for other cable network channels. From 1992 to 1998, license fees for Discovery, A&E, The Learning Channel, and Nickelodeon more than doubled, while the license fees for all cable channels rose 17 percent. Fuller D.T. 18; PTV Ex. 21.

454. Discovery, A&E, The Learning Channel, and Nickelodeon carried programming that in some ways is similar to PTV programming, and their license fees more than doubled during the 1990s, so cable operators' valuation of PTV programming also must have increased greatly. Tr. 3624 (Fuller). If cable operators are willing to pay these increasing license fees to more and more cable channels that attempt to imitate Public Television, then that is a benchmark of the value of Public Television. Tr. 3508-3509 (Fuller); Fuller D.T. 18.

455. While network license fees provide useful relative comparisons, absolute license fee data is much less helpful because the market for cable network channels is greatly influenced by advertising and other considerations that are absent in the distant signal "marketplace." Tr. 373-74 (Trautman); Tr. 1374-75 (Egan). Because cable systems have the ability to insert local advertising into cable network channels, they may offset the channel's license fee, so that the license fee overstates the cost to a cable operator, particularly for more popular cable network channels such as ESPN that are able to generate significant local

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33 Nickelodeon's 1998 and 1999 programming expenditures were $258 million and $296 million, respectively. PTV Ex. 1-R.

34 Discovery's 1998 and 1999 programming expenditures were $149 million and $148 million, respectively. PTV Ex. 1-R.

35 A&E's 1998 and 1999 programming expenditures were $132 million and $165 million, respectively. PTV Ex. 1-R.

36 TLC's 1998 and 1999 programming expenditures were $89 million and $100 million, respectively. PTV Ex. 1-R.

advertising revenue. Tr. 369-71 (Trautman); Tr. 3604-05 (Fuller). The license fee of ESPN (and some other cable network channels) also included a network surcharge, which increased the fee relative to other cable network channel license fees. Tr. 7601 (Gruen).

PART TWO – CONCLUSIONS OF LAW

I. LEGAL STANDARDS FOR DETERMINING AWARD SHARES

456. Congress provided limited guidance to the Panel on how to go about its task of allocating the royalty pool. 90-92 CARP Op. 18 (citing H. Rep. No. 1476, 94th Cong. 2d Sess. 97, *reprinted in* 1976 U.S.C.C.A.N. 5659, 5712). The Copyright Act states that the Panel "shall act on the basis of" a fully documented written record, decisions of the Copyright Royalty Tribunal and prior CARPs, and rulings by the Librarian of Congress. 17 U.S.C. § 802(c). Given the decisions of the Copyright Royalty Tribunals and the 1990-1992 CARP, the Panel accordingly has a mandate to allocate royalties based on the relative marketplace value of the different program categories at issue, as reflected in the criteria developed in prior distribution proceedings.

457. In the 1978 proceeding, the Copyright Royalty Tribunal identified three primary factors to guide distribution decisions: (1) the harm caused to copyright owners by distant retransmissions; (2) the benefit derived by cable systems from distant retransmissions; and (3) marketplace value of works transmitted. 1978 Cable Royalty Distribution Determination, 45 Fed. Reg. 63026, 63035 (Sept. 23, 1980). The Tribunal also identified two secondary factors: (1) quality of the retransmitted material and (2) time-related considerations. *Id.*

458. In the 1990-1992 proceeding, the Panel "concluded that 'harm' should be taken as a given," and it said that it would "neither summarize nor address the claimants' arguments in this regard or attempt to grant or deny 'credits' for a showing of harm." 90-92 CARP Op. 21; *see also* 61 Fed. Reg. 55653, 55657-59 (Oct. 28, 1996). Relying on this precedent, none of the parties in this proceeding has presented substantial evidence as to the harm flowing from distant retransmission of their programming.[37]

459. Over time, the Tribunal identified problems with the two secondary criteria, finding that "quality" was difficult to judge comparatively and finding that time considerations could provide a distorted view of value. 90-92 CARP Op. 19-20. While "quality" *per se* may have been rejected as a decisional factor, evidence of qualitative differences in programming still is relevant insofar as it may reflect attributes of relevance to the marketplace value of different programming in terms of attracting and retaining subscribers. The 1990-1992 Panel acknowledged, as did the 1983 and 1989 Tribunals, that "the perception of quality by cable operators may be recognized as a factor inducing them to import PTV signals." 90-92 CARP Op. 123. In addition, time-related considerations have been given little or no weight since the 1978 proceeding in which they were identified. 45

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[37] Public Television did, however, present testimony and incorporate prior testimony regarding harm to PTV fundraising and PTV over-the-air viewers from distant retransmission of PTV signals as the basis for distinguishing PTV's view of distant cable carriage from its view of local cable carriage. Wilson R.T. 1-3; 90-92 Downey D.T. 2-10; 90-92 Tr. 5370-71, 5382-83, 5428, 5431, 5448-55 (Downey).

Fed. Reg. at 63036 ("The time-related consideration factor . . . was given very limited weight by the Tribunal."); 49 Fed. Reg. 37653, 37655 (Sept. 25, 1984); 90-92 CARP Op. 19-20.

460. As various criteria have been articulated and then rejected, relative marketplace value always has been the principal basis for allocating cable copyright royalties:

- The 1978 Tribunal, initially identifying the marketplace standard, stated that "[t]he marketplace value of the works transmitted, based on the record, was one of the most significant factors considered by the Tribunal in making the allocation to the various categories of claimants." 45 Fed. Reg. at 63036.

- The 1983 Tribunal affirmed that "[t]he Tribunal's goal, as it has stated in the 1978 proceeding, is 'simulate market valuation.'" 51 Fed. Reg. 12792, 12793 (Apr. 15, 1986).

- The 1989 Tribunal recognized that the evidence presented in its proceeding "was primarily marked by arguments as to which [study] is the best indicator of the market value of the Phase I program categories." 57 Fed. Reg. 15286, 15288 (Apr. 27, 1992).

- The 1990-1992 Panel observed that "[a]s opposed to the five factors delineated above, the Tribunal instead has consistently placed principal reliance on marketplace factors" and "concluded that 'market value' is the only logical and legal touchstone." 90-92 CARP Op. 22- 23.

461. An analytical factor to be considered as a complement to marketplace value is the extent to which circumstances have changed since the last arbitrated decision for the years 1990-92. While "changed circumstances" should not be the Panel's sole standard, considering whether circumstances have changed since the prior arbitrated award "will obviously be relevant to the question whether an award should differ from the prior . . . award." *National Association of Broadcasters v. Copyright Royalty Tribunal*, 772 F.2d 922, 931-32 (D.C. Cir. 1985).

462. The principle of "changed circumstances" is well established as a central tool for decisionmaking in these proceedings, so that the Panel does not start from scratch in each proceeding but rather builds on what has gone before. Substantial precedent supports reliance on changed circumstances as a core consideration in these proceedings:

- "[I]t is entirely appropriate for the Tribunal to employ, as one of its analytical factors, the determination whether circumstances have changed in the course of the ensuing twelve months [since the last award]." *NAB v. CRT*, 772 F.2d at 932.

- "Have there been any factual changes since 1980 . . . which justify a change in the awards previously made?" *1983 Cable Royalty Distribution Decision*, 51 Fed. Reg. at 12792.

- "[B]oth better evidence and changed circumstances are to be considered by the Tribunal." *1987 Cable Royalty Distribution Decision,* 55 Fed. Reg. 11988, 11992 (March 30, 1990).

- "Have there been any factual changes since 1983 which justify a change in the awards previously made?" *1989 Cable Royalty Distribution Decision*, 57 Fed. Reg. at 15288.

- The 1990-1992 Panel considered changed circumstances with respect to nearly every claimant group. For example, the Panel found that "[b]y all available comparable measures, PTV's share of the marketplace has increased since 1989." 90-92 CARP Op. 122. Another example is the Panel's finding that "[o]n a relative basis, . . . circumstances have changed for the Program Suppliers since the last proceeding" when it determined that the market value of movies and series had "receded," and reduced Program Suppliers' 60 percent award from 1989 to 55 percent in 1990-92. 90-92 CARP Op. 85.

II. OVERVIEW – THE SIMULATED MARKETPLACE

463. The Panel's objective is to "simulate market valuation" through application of "marketplace criteria." 90-92 CARP Op. 24; 57 Fed. Reg. at 15288; 51 Fed. Reg. at 12793; *NAB v. CRT,* 772 F.2d 922, 939 (D.C. Cir. 1985).

464. "Conceptually, the factual question [the Panel] must resolve is, what would the cable system have had to pay and be willing to spend for the broadcast station programming if, in fact, it had been required to negotiate with the broadcast station in an open market." 90-92 CARP Op. 23-24. "Ultimately, the question is, what would the cable system operators have had to pay in an open market for the sports, movies and other categories of programming that existed in the years [at issue]?" *Id.* at 24.

465. This exercise, carried to its logical extreme, presents a host of imponderables, and thus practical considerations must inevitably limit the extent to which the Panel can plausibly undertake a full replication of a truly "free" marketplace. As the 1990-1992 Panel recognized, "there is no mathematical or mechanical solution to the problem." 90-92 CARP Op. 24. Yet the evidence in this record establishes a clear analytical basis by which the Panel may "simulate" the relevant marketplace based principally upon evidence of the value and benefits to cable operators of the different Phase I programming categories.

466. The value of distant signals to the cable operator is based upon their ability to attract and retain subscribers. F.F. ¶¶ 12-23, 99-105.[38] In other words, the relevant "marketplace value" at issue here flows from a market in which the programming (by law)

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[38] References to the proposed findings of fact, set forth in Part One, are designated as "F.F.". References to the proposed conclusions of law, set forth in Part Two, are designated as "C.L.".

cannot be used to generate advertising but rather solely functions in terms of attracting and retaining cable subscribers. F.F. ¶¶ 99-105. As the 1989 Tribunal stated,

> [T]he cable industry's goal in importing distant signals is not to increase advertising; cable operators cannot insert their own advertising in distant signals. It is to attract and retain subscribers.

57 Fed. Reg. at 15288.

467. Thus, for purposes of addressing the simulated marketplace, and determining the relative marketplace value of different categories of programming, the governing issue is the extent to which particular programming when imported as a distant signal adds value for the cable operator in relation to the entirety of its programming line-up and in relation to its overall objective of attracting and retaining subscribers. F.F. ¶¶ 99-105. A distant signal cannot have value in terms of generating advertising revenue, and in any event advertising revenues are not a significant source of revenue for cable operators. F.F. ¶¶ 100-101. "[T]he cable operator's interest in distant signals would be more in the nature of adding diverse programs to their range of offerings or responding to particular segments of their market than in responding to raw viewing data." 57 Fed. Reg. at 15288.

468. Cable operators do not make decisions about whether to carry particular, individual programs but rather evaluate the benefit of an entire channel of programming that has been assembled by a cable network or over-the-air broadcast station. F.F. ¶ 16; 90-92 Tr. 1924 (Maglio). Cable operators do not alter the schedule of the particular channels that they carry. 90-92 Tr. 1924 (Maglio).

469. In a free or simulated marketplace, cable operators would not negotiate directly with individual program owners but would instead negotiate with compilers of distant signals over carriage of an entire channel of programming. Joskow R.T. 7-8; 90-92 Tr. 10748-56, 10759 (Scheffman). Consequently, "[t]he simulated market looks a great deal like the cable network market, including, most significantly, the fact that cable systems purchase not merely a program, but an entire signal, such as ESPN." 90-92 CARP Op. 24.

470. It is not likely that, in such a "free" or "simulated" marketplace, there would be meaningful changes in the general categories of programming carried on distant signals. Over-the-air commercial broadcast signals would continue to offer programming oriented toward generating advertising in their local markets. 90-92 Tr. 10802-03 (Scheffman). Compared to the revenues associated with over-the-air commercial broadcasting in local television markets, copyright royalties are too small to lead to meaningful changes in programming on distant signals -- even in a "free" or "simulated" marketplace. 90-92 Tr. 10761-66 (Scheffman). In developing this simulated marketplace, it is thus not necessary to evaluate "supply side" changes in the general categories of programming supplied via distant signal. 90-92 Tr. 10870-72 (Scheffman).

471. In the marketplace to be "simulated" by the Panel, in contrast, advertising revenues and advertising-related measures of value would not play a meaningful role in

assessing the value of programming to cable operators or determining the compensation provided by distant signals to program owners. 90-92 Tr. 10773-74 (Scheffman). First of all, distant signals cannot be used to generate advertising, and this assumption should similarly be applied in assessing the relative marketplace value of different categories of programming in the hypothetical free market. 90-92 Tr. 10771 (Scheffman). In any event, even if that assumption were not applied, advertising accounts for just 5-6 percent of cable operators' revenues and therefore distant signal programming would necessarily be most important in terms of attracting and retaining subscribers even if cable operators were permitted in a free market to insert their own advertising. F.F. ¶¶ 13-14; *see also* 90-92 Tr. 10773-74 (Scheffman). The benefits to cable operators from carriage of distant signals -- and, therefore, the relative compensation ultimately received by particular Phase I programming categories -- thus would not be determined by advertising but instead by the attractiveness of that programming in terms of attracting and retaining subscribers. F.F. ¶ 101.

III. MEASURES OF MARKETPLACE VALUE

472. In addition to the Public Television Claimants, the Program Suppliers, Joint Sports Claimants, and Commercial Television Claimants all presented studies and analyses that provide useful information for determining royalty awards. All of these studies have limitations, but together, and as appropriately adjusted, they can serve as valuable tools in quantifying marketplace value to cable operators of each of the program categories.

A. The Nielsen Viewing Studies

473. Copyright Royalty Tribunals and the 1990-1992 CARP used viewing data as one measure among several measures of value in allocating shares. While by no means a perfect measure of value to cable operators, viewing data have always been relied on in these proceedings as a "starting point" or "zone of reasonableness" for setting appropriate awards:

- The 1979 Tribunal stated the following about the Nielsen surveys:

  > [T]he Nielsen report] is a useful "starting point" for the application of criteria to the record evidence, but we have not accepted it as a talisman which fully reveals and determines the application of the criteria. A major reason for the Tribunal being unable to accord the Nielsen "hard numbers" the weight urged upon us by MPAA is that we share the views advanced by certain other claimants, notably Joint Sports and NAB, that cable operators are interested in selling subscriptions and that viewership is of limited relevance to cable operators.

  47 Fed. Reg. 9878, 9892 (Mar. 8, 1982).

- The 1983 Tribunal stated that it "still maintain[ed] that the Nielsen data are most useful, and help to develop the 'zone of reasonableness' for the Tribunal's allocations." 51 Fed. Reg. at 12808.

- The 1989 Tribunal found that "the Nielsen study is a reliable and important piece of evidence for [its] allocation decision," but it relied on the specific Nielsen share calculations "only by a preponderance of the evidence." 57 Fed. Reg. at 15299-300. The 1989 Tribunal made allocations that departed from viewing shares based upon a showing of avidity of viewers for particular programming that would drive cable systems to respond to that programming out of proportion to viewing. 57 Fed. Reg. at 15301.

- The 1990-1992 Panel accepted the Nielsen viewing studies as surveys of viewer conduct that were adequately accurate for larger claimant groups in particular, but the Panel refused to use the Nielsen shares to quantify market value other than to say they were a significant factor to be weighed with all other factors. 90-92 CARP Op. 44. The Panel did not rigidly adhere to the actual shares as presented by the Nielsen studies, saying that "we accept these numbers merely as a reference point and not as an absolute value. *Id.* at 43.

474. Witnesses in this and prior proceedings have made the point that a mere count of viewing minutes cannot be relied on as the sole means to determine the relative value of different categories of programming. F.F. ¶ 249; Tr. 765-67 (Crandall); Tr. 3504-05 (Fuller); Johnson R.T. 8. It thus could not properly be said that heavy viewing to a handful of 20-year-old syndicated re-runs should imply a greater value than, for instance, the entire sports category. On the other hand, if viewing data is combined with <u>other information</u> about particular program categories, the information when viewed in combination may be an important indicia of valuation. For instance, in relation to the PTV category, if there is substantial viewing of distant signals (in relative terms) and it is <u>also</u> known from other sources that the programming is diverse and different from programming conventionally found on other sources of programming, that viewing data when combined with other information about the programming may reflect or at least confirm its marketplace value. Thus, while viewing data alone cannot adequately identify the value of particular programming in terms of attracting and retaining subscribers, viewing data together with other inputs and information about the nature of the particular programming may shed important light on marketplace value.

475. It also bears emphasis that viewing data can be an important form of changed circumstances. In each litigated proceeding, the Copyright Royalty Tribunal and more recently the 1990-92 CARP have emphasized degrees of change in viewing data (among other evidence) in evaluating changed circumstances for particular categories.

476. Through the testimony of Mr. Paul Lindstrom of A.C. Nielsen Company, the Program Suppliers presented surveys of distant signal viewing for both 1998 and 1999. F.F. ¶¶ 124-141. The results of these studies for the various claimant groups for household viewing and viewing for all viewers (2+) are set forth in Table 1. F.F. ¶ 137.

477. Comparisons of the viewing shares of each claimant group from 1990-92 to 1998-99 are set forth in Tables 2 and 3. F.F. ¶¶ 139-141. The viewing shares for Public Television and the Commercial Television Claimants increased substantially from 1992 to 1998-99; the viewing share for the Joint Sports Claimants also increased, though less

substantially; and the viewing share for the Program Suppliers declined substantially between those two time periods. F.F. ¶¶ 140-141.

478. Previous Tribunals and the 1990-1992 CARP never have mathematically adjusted viewing data to account for varying appeal of programming. *See, e.g.*, 57 Fed. Reg. at 15289 (rejecting Program Suppliers' proffered viewing-to-time ratio). Nonetheless, Program Suppliers, through the testimony of Dr. Gruen, presented complex and ultimately illogical calculations purportedly to adjust viewing data for varying popularity of programming. As PTV and other claimants showed in this proceeding, Dr. Gruen's adjustments to viewing shares for "avidity" are methodologically flawed and, in any event, do not measure the intensity of a subscriber's interest in and preference for particular programs. F.F. ¶¶ 271-286. Accordingly, this Panel should reject Dr. Gruen's "avidity" adjustments to viewing shares, and to the extent that the Panel bases its allocation decision on Nielsen viewing data, it should use unadjusted Nielsen viewing shares.

479. Dr. Gruen also presented an argument for departing from the precedent of using household viewing data and instead focusing only on viewing by the 18-49 demographic. Ample evidence presented in this proceeding, however, demonstrates that Dr. Gruen's reliance on 18-49 viewing data is not justified. F.F. ¶¶ 287-292. Dr. Gruen himself conceded that he had not statistically analyzed the basis for relying on 18-49 viewing and that if none were shown, then the focus on the 18-49 demographic would not be justified. F.F. ¶ 289. Dr. Fairley then demonstrated that there is no statistical basis for concluding that in selecting distant signals cable operators place the greatest value on the 18-49 demographic. F.F. ¶¶ 290-291. While Dr. Fairley's analysis should be dispositive, additional evidence clearly demonstrates that cable operators value demographic groups other than just 18-49-year-olds and attempt to maximize their revenues and profits by including programming that is appealing to all viewers. F.F. ¶ 292. Accordingly, to the extent that the Panel places weight on Nielsen viewing data in making its allocation determinations, it should use either household viewing or viewing among all viewers (Nielsen's 2+ viewing data).

B. The Bortz Cable Operator Survey

480. The Bortz survey presented by Joint Sports Claimants, properly adjusted to account for biases, is another valuable input in the allocation decision because it provides empirical information on the relative value to cable operators of different distant signal programming categories. The Bortz survey is focused on the proper question: How do cable operators relatively value programming in terms of attracting and retaining subscribers? Because the Bortz survey is addressed to the analytical issue most relevant to this proceeding, properly adjusted it forms an important cornerstone for the Panel's simulated marketplace determinations. F.F. ¶¶ 142-224.

481. There can be no question that the Bortz survey results as presented by JSC must be adjusted to account for inherent biases. The 1990-1992 Panel found the Bortz survey to be "highly valuable in determining market value," but also found that it had limitations. 90-92 CARP Op. 66. The 90-92 Panel recognized -- as did the 1983 and 1989 Tribunals -- that the Bortz results must be adjusted to take account of the differences in the way Public

Television and commercial television programming are treated in the survey. 90-92 CARP Op. 123-124; *see also* 57 Fed. Reg. at 15299-300; 51 Fed. Reg. at 12811.

482. For this proceeding, PTV's witness Dr. Fairley identified three major biases in the 1998-99 survey for which adjustment should be made: (i) the assignment of "automatic zeroes" to the PTV category but not to any commercial categories; (ii) the elimination of systems that carried only PTV as a distant signal; and (iii) the valuation by cable operators of non-compensable WGN programming. These biases and their effects are described in F.F. ¶¶ 160-181.

483. After identifying these biases, Dr. Fairley developed and applied three alternative methodologies -- Method 1, Method 2, and Method 3 -- to reduce or eliminate the biases and produce more accurate share estimates. The results of each of these methods are set forth in F.F. ¶¶ 182-216.

484. In the 1990-92 cable royalty distribution proceeding, Dr. Fairley presented adjustments to the Bortz survey results based solely on a method similar to Method 2. Methods 1 and 3 are new to this proceeding and were developed in part to respond to concerns raised by the CARP in the 1990-92 proceeding and by opposing claimants here. F.F. ¶ 188. Methods 1 and 3 are the preferred methods for determining awards, in that neither method requires the estimation of values for signals or program categories not actually carried. F.F. ¶¶ 194, 204, 208, 216.

485. Comparison of the adjusted Bortz shares of each claimant group from 1992 to 1998 are set forth in Table 10. F.F. ¶ 223. The adjusted Bortz shares for Public Television, the Commercial Television Claimants, and the Joint Sports Claimants increased, while the shares for the Program Suppliers categories (movies and syndicated series) substantially decreased. F.F. ¶ 223.

C. Subscriber Instances of Carriage

486. An instance of carriage of a distant signal represents a "vote" by the cable operator. When a cable operator chooses to retransmit a distant signal, it affirmatively chooses to use a portion of its limited channel capacity to carry the programming on that signal. The cable operator is exercising its judgment that that signal has value to the cable operator in terms of attracting and retaining subscribers. F.F. ¶¶ 226, 234.

487. The validity of subscriber instances data as an indication of cable operator choice is not lessened by the minimal effect of must-carry regulations. Dr. Leland Johnson testified that data regarding partially distant cable systems do not provide a basis for determining whether systems are carrying a broadcast signal that is entitled to must-carry, and "even if on paper the cable operator is required to carry [a] signal," without must-carry, "the cable operator might have voluntarily carried the signal." Tr. 9240 (Johnson); F.F. ¶ 235. With respect to PTV, an additional provision of the must-carry regulation specifies that if a distant cable system with 13 to 36 channels has no local non-commercial station, it must import a distant one. No evidence was presented to show the number of Form 3 systems that carried PTV signals pursuant to the "distant" must-carry requirement, and Dr. Johnson

testified that in 1998, five percent of subscriber instances were accounted for by systems matching the "distant" must-carry criteria, and in 1999, that figure declined to less than 2 percent. F.F. ¶ 235. In any event, Dr. Johnson testified, cable systems carrying distant PTV signals subject to "distant" must-carry may have chosen to carry the signals in the absence of the constraint. F.F. ¶ 235.

488. A subscriber instance of carriage (or "subscriber instance") is defined as one subscriber having access to one distant signal. In contrast to instances of carriage data, subscriber instances discriminate among cable systems by size and also by whether the distant signal covers all subscribers or just some of them. Subscriber instances provide a more reliable measure of the underlying value of distant signals to cable operators and thus serve as more reliable inputs in determining appropriate royalty awards. F.F. ¶¶ 230, 236.

489. Subscriber instances of carriage are a valuable metric for determining PTV's share based on observations for 1998-99. Measured by events in the 1998-99 period, subscriber instances of carriage provide important insights into the judgments of cable operators about the value of PTV distant signals. F.F. ¶ 237. The increase in subscriber instances is also an important changed circumstance since the 1990-92 proceeding. F.F. ¶¶ 226-233.

490. Subscriber instances of carriage data are set out in ¶ 231, Table 12, above. In order to use 1998-99 subscriber instances data as a metric for determining PTV's share, it is necessary to adjust that data to reflect (1) the fact that about 50 percent of WGN programming and 50 percent of network affiliate programming (the network portion) are non-compensable, and (2) the fact that PTV stations generally broadcast about 20 hours out of each 24-hour day. The results of these adjustments are set forth in ¶ 239, Table 13.

491. Each subscriber instance of carriage for a PTV signal is at or near parity with each subscriber instance of carriage for a non-PTV signal. Parity or near parity between PTV and non-PTV subscriber instances is implied by the CARP's 1990-92 award, by the Nielsen viewing results, and by testimony demonstrating avidity for PTV programming. F.F. ¶ 241-247.

D. The Ducey/Fratrik Time Study

492. The Commercial Television Claimants, through the testimony of Drs. Richard Ducey and Mark Fratrik, presented a comprehensive statistical study estimating the amount of programming, by program type, actually carried on distant signals by Form 3 cable systems in 1992 and 1998-99. F.F. ¶¶ 257-261. The results of this study are summarized in Table 16, above. F.F. ¶ 259.

493. The time study shows that the relative amounts of distant signal programming shifted significantly between 1992 and 1998-99. Theses changes were largely the result of the conversion of WTBS to a cable network in 1998. F.F. ¶ 261.

494. The time study reveals a substantial increase in the relative amount of Public Television programming available to Form 3 cable subscribers from 1992 to 1998-99 – from 5.04 percent to 14.87 percent. The study also shows an increase in the share of

Commercial Television and Canadian programming and a substantial decrease in the relative amount of Program Suppliers programming available to subscribers between those two time periods. The relative amount of Sports and Devotional programming available in 1998-99 was roughly the same as it was in 1992. F.F. ¶¶ 259-260.

E. The Rosston Analysis

495. The Commercial Television Claimants also presented, through the testimony of Dr. Gregory Rosston, an econometric analysis purporting to measure the relative marketplace value of the different program types in 1998 and 1999. The Rosston analysis focused on the relationship between distant signal programming and the royalties paid by cable operators to carry that programming. F.F. ¶¶ 262-267.

496. In performing his analysis, Dr. Rosston developed a regression model that incorporated various factors potentially relevant to the determination of royalties paid by cable operators, including the number of subscribers on a system, the count of local channels, controls for income, whether the system paid any royalties at the 3.75 rate, whether the system carried any partially distant signals, and program time. F.F. ¶ 263.

497. Dr. Rosston included a control variable in his regression model to account for systems that carry distant signals at the higher 3.75 percent rate. Dr. Rosston used this variable to eliminate any skewing of the results in favor of PTV or any other category. F.F. ¶ 267.

498. After performing his regression analysis, Dr. Rosston converted his regression estimates into an implied royalty share for each claimant category. F.F. ¶ 264 (Table 17). These results showed an increase from the 1990-92 awards in the shares for Public Television, the Commercial Television Claimants, and the Joint Sports Claimants and a decrease in the share of the Program Suppliers. F.F. ¶ 264.

IV. ROYALTIES CANNOT BE DISTRIBUTED BASED UPON AMOUNTS PAID-IN FOR PARTICULAR DISTANT SIGNALS

499. The Joint Sports Claimants and the Program Suppliers contend that the royalty award to Public Television should be based upon, and limited to, the amounts paid by cable operators as royalties for PTV distant signals. F.F. ¶ 304. While the Canadian Claimants have urged this Panel to adopt a fees-generated approach in determining their share, they are not advocating that it be applied to the Public Television Claimants. F.F. ¶ 301.

500. Because amounts paid-in do not reflect actual marketplace value -- the standard that this Panel must apply in determining shares -- prior panels have consistently rejected the suggestion that the royalty award to Public Television should be based upon or

limited to the amounts paid-in. F.F. ¶¶ 305-306.[39] This is, for all practical purposes, a legal determination as to the appropriate standards that must govern these proceedings. As such, this prior determination is binding on the Panel. 17 U.S.C. § 802(c).

501. In any event, as a matter of fact, there is extensive testimony in this record that the amounts paid as statutory fees for carriage of any given distant signal -- or group of distant signals -- do not establish the "value" of that distant signal to cable operators or cable subscribers. F.F. ¶¶ 308-320. This follows from the fact that compulsory license fees are set by statute and bear no necessary relationship to marketplace value or benefits to cable operators from the carriage of particular distant signals. F.F. ¶¶ 309, 313-315.

502. In this proceeding, not a single witness suggested that copyright fees are reflective of fair market value. To the contrary, every witness who was asked agreed that copyright fees do not reflect fair market value and that all program categories are undervalued by the compulsory license. F.F. ¶ 308. Fees set by Congress over twenty years ago could not possibly be expected to reflect actual market values. F.F. ¶¶ 309, 313-315.

503. Because the entire purpose of this proceeding is to allocate a limited, fixed pool of money based upon the relative value to cable operators of different categories of distant signal programming, it is clear that any given category of programming might in fact be entitled to an award of more or less than was actually paid for it. This is true even accepting that, in absolute terms, the value of any given distant signal to the cable operator can be presumed to be at least as much as it paid for the signal. F.F. ¶¶ 317-320. In relative terms, however, as compared to absolute terms, because royalties are allocated based on relative value among programming categories, any given category of programming could be awarded more or less than the actual dollars paid as fees for its distant signal carriage. F.F. ¶¶ 317-320. This fact was effectively conceded by witnesses for the Joint Sports Claimants and the Program Suppliers. F.F. ¶¶ 317-320.

504. An additional problem with the fees-generated approach is that there is no precise number that can be determined as the royalties "paid" for carriage of public television or Canadian distant signals. F.F. ¶ 321. While the Canadian Claimants presented evidence of a "range" of royalties that could be assigned with greater certainty to the carriage of Canadian distant signals, no such evidence has been presented with regard to the Public Television Claimants. F.F. ¶¶ 300-301.

505. Finally, as discussed at ¶¶ 4, 68, 598, more than 20 percent of the Basic Fund consists of fees paid by systems not carrying any distant signals at all, and another 5 percent of fees are paid by Form 1 and Form 2 systems without regard to distant signal

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39 The CARP in the 1990-92 distribution proceeding "did not wish to use a fee generation method" and "tried to distance ourselves" from it, but nevertheless used the method for the narrow purpose of determining the Canadian Claimants' award, given that no claimant group objected to the amount of the award and there was little other evidence in the record. F.F. ¶ 307; 90-92 CARP Op. 141; 61 Fed. Reg. at 55667.

carriage. These fees cannot be identified with particular claimant groups, confirming that Congress intended royalties to be allocated based on relative value in a hypothetical marketplace, <u>not</u> on amounts paid in. F.F. ¶ 323.

V. PUBLIC TELEVISION PROGRAMMING OFFERS IMPORTANT BENEFITS TO CABLE OPERATORS

A. PTV Programming "Fits" The Needs Of Cable Operators

506. "The uniqueness of PTV programming, arising from its non-commercial educational objectives, wide range of innovative programs and heavy mix of original first-run productions which are expensive and require years of research and development, dovetails closely with the need of cable operators to offer programs appealing to a variety of subscriber interests." 90-92 CARP Op. 114.

507. The overriding goal of cable system operators is to attract and retain subscribers to their cable systems. F.F. ¶¶ 12-23, 99-105. Cable operators seek to identify the blend or menu of programming that will attract and retain the greatest number of subscribers; they are trying to attract as many different kinds of subscribers as they can with different kinds of programming. F.F. ¶ 15.

508. As the CRT noted in its 1989 decision, "cable's goal is to attract and retain subscribers, and will offer "niche" services, often unrelated to the volume of viewing, to induce segments of the population to subscribe." 57 Fed. Reg. at 15301. Public Television programming is attractive to many such segments, from parents of children, to lovers of opera, to history buffs, to anyone interested in the wide variety of educational and cultural programming that Public Television offers. F.F. ¶¶ 340-436.

509. When evaluating programming, cable operators look for programming that is different from the programming they already carry in order to appeal to additional subscribers. F.F. ¶¶ 384-395. By definition, Public Television is different -- its motto "If we don't do it, who will?" expresses the notion that PTV presents educational and informative programming that is not otherwise available in the commercial marketplace. F.F. ¶ 382.

510. Public Television -- with its diverse mix of quality programming of types that simply are not available on commercial television -- is unique among distant signals in that a single channel offers a collection of programming that meets a variety of viewer needs and interests not readily found elsewhere in television. F.F. ¶¶ 438-448. Furthermore, PTV's programming is the result of extensive research and production time and expense so that its overall quality far exceeds that of similar programming found on commercial television. F.F. ¶¶ 340-371.

511. By its very nature, much of public television programming is not likely to attract large nationwide viewing audiences. Instead, PBS attracts a highly loyal viewership for different programming types. The evidence establishes that these are precisely the sorts of viewers cable operators want to attract and retain by offering a mix of programming that fits their interests. F.F. ¶¶ 106-116, 430-436.

512. A cable operator that failed to provide any public television signal would have a slate of programming lacking an essential element by almost any standard. The ability to offer award-winning, first-run educational children's programming such as SESAME STREET and ARTHUR and BARNEY to parents with children living at home is invaluable, as is the ability to provide subscribers of all ages with access to the distinctive and diverse mix of educational and cultural programming that only Public Television offers. F.F. ¶¶ 375-381.

B. Public Television Program Offerings are Unique

513. The programming found on Public Television simply is not available in any comparable form on commercial television, and this provides an unquestioned benefit to cable operators. A hallmark of the programming available on Public Television is its diversity, particularly when compared with commercial television. F.F. ¶¶ 384-395. The diversity of programming on public television reaches relatively fewer but avid viewers -- which accords precisely with the interests of cable operators in offering a wide array of specialty programming. F.F. ¶¶ 430-436.

514. Public Television is a leader in first-run programming. PBS provided more than 2,000 hours of original, first-run programming to its member stations in each year of 1998 and 1999. In addition to this nationally distributed original, first-run programming, local stations produced and acquired additional first-run programming. F.F. ¶¶ 390-391.

515. Categories of programming on PTV that are generally not found on commercial television include performance programming (symphonies, operas, stage plays, and musicals), documentary programming of the caliber shown on PTV, and independent film. F.F. ¶¶ 392-395. Award-winning documentaries like THE FARMER'S WIFE, which took six years to make, are "very unusual in the broadcast landscape" and are part of what makes Public Television distinctive. F.F. ¶¶ 393-394.

516. Public Television's children's programming is unique in all of television, and hence particularly valuable to cable operators. Public Television's educational, non-violent, commercial-free children's programming simply is not available on advertising-supported commercial television. A particular distinction from commercial television is that PTV has educational programming directed toward older children, such as ZOOM, WISHBONE, and IN THE MIX, which is practically absent elsewhere. F.F. ¶¶ 400-408.

517. While commercial broadcasters may acquire some programming from independent producers, PTV airs a significant amount of independently produced programming that truly represents diverse voices, views, perspectives, and production styles. F.F. ¶¶ 409-411.

C. 1998-99 Were Important Years for Public Television Programming

1. Major programming successes, awards, and acclaim

518. Through PBS's various programming services, PBS provided a total of more than 4,600 hours of programming to its member stations in each of 1998 and 1999. That

figure includes more than 2,000 hours of original, first-run programming each year. F.F. ¶ 350.

519. In 1998 and 1999, the National Programming Service, PBS's primary variety programming service, continued its invigoration of public television programming, and this clearly improved Public Television's programming mix and appeal to viewers and enhanced the visibility of Public Television as an important source of programming alternatives to commercial television. In 1998 and 1999, PBS worked to make sure that its signature or iconic series were as strong and revitalized as possible. PBS also introduced new content and new mini-series and specials to its line-up in 1998 and 1999. F.F. ¶¶ 349-361, 365-371, 396-399.

520. PTV aired many unique and widely acclaimed documentaries in 1998-99, including David Sutherland's FRONTLINE series THE FARMER'S WIFE, which followed the daily lives of a farm family in the Midwest and took Mr. Sutherland six years to make. The commercial broadcast industry does not produce comparable documentary programming. F.F. ¶¶ 393-394.

521. PBS's programming efforts were rewarded by numerous awards. For its 1998 and 1999 seasons, PBS programs won 16 prime-time Emmy awards for news and documentaries and 15 daytime Emmys. PBS programs also won eight duPont-Columbia University awards and 19 Peabody awards, more than all other broadcast or cable networks combined. In children's programming, PBS's Emmy tallies consistently topped all other broadcast and cable networks combined. F.F. ¶¶ 421-422. Television critics, too, enthusiastically welcomed the watershed events in public television programming in 1998 and 1999 as Public Television garnered over 63,000 column inches of editorial coverage in numerous national publications. F.F. ¶¶ 423-424. The riveting mini-series MOYERS ON ADDICTION: CLOSE TO HOME set a new record for coverage in the print media. There was a clear "halo effect" from the huge success of the program -- the credibility and attractiveness of all public television programming was enhanced by this demonstrated success for public television. F.F. ¶¶ 421-24.

2. Children's programming initiatives

522. In 1998 and 1999, PBS committed itself to identifying and developing new series in the children's area for both pre-school and school-aged children, launching TELETUBBIES in 1998 and DRAGON TALES in 1999. F.F. ¶ 368. PBS also added new and different production values to existing children's series such as SESAME STREET and BARNEY. F.F. ¶ 367.

523. PBS established an initiative in 1998-99 to infuse local content into national programs, specifically in the children's program ZOOM, which is aimed at older children in grades two through four. PBS made the ZOOM "customizable" so that local stations could insert local content drawn from their own communities. F.F. ¶ 369.

524. Other programs for school age children that aired in 1998 and 1999 that were not available during 1990-92 included ARTHUR and WISHBONE. The WISHBONE

series introduced elementary school children to the classic literature of Shakespeare, Dickens, and Twain through the eyes and adventures of a smart little dog named Wishbone. F.F. ¶¶ 352-353. Public Television also aired IN THE MIX, an award-winning broadcast produced by, for, and about teenagers, dealing with critical issues such as substance abuse prevention, teen immigrants, racism and bias crimes, and conflict resolution. F.F. ¶ 354.

525. During 1998 and 1999, PBS developed the new PBS KIDS brand, the umbrella for all PBS children's programs and services that created a new face and a new energy around kids. The launch included new animation packaging, heavy on-air promotion, an extensive paid media campaign and major publicity support. PBS KIDS offered a way for children to make tangible a connection with Public Television that previously had been amorphous and undefined. F.F. ¶ 408.

3. Increased promotion

526. In 1998 and 1999, PBS undertook a number of promotional activities to heighten the visibility and profile of Public Television programming. PBS selected numerous high-profile programs to support through paid media, on-air promotion, publicity and special events. In addition, PBS produced brand spots to demonstrate the value people derive from watching their PBS station. It also developed a special initiative to highlight PBS's wide range of high quality history programs, "History's Best on PBS," and PBS used its 30th anniversary as a launching pad for a nine-month public relations campaign, targeting key television press and opinion leaders with great success. PTV's promotional activities raised viewer awareness; it made PTV programming more visible and valuable to cable subscribers and thus to cable operators. F.F. ¶¶ 425-427.

D. Cable Operators Benefited from the Distant Retransmission of Public Television Signals

1. Distant retransmission is a particular benefit for cable operators who have no local public television signals

527. The most obvious and compelling benefit of a distant public television signal is for the cable operator that does not have access to a local public television signal. A cable operator that could not offer a public television signal on its system would have an obviously deficient slate of programming. It would be missing the most widely acclaimed programming on television -- and programming that cable subscribers clearly want. The ability to offer a first public television signal by distant retransmission would be highly valued by the cable operator. F.F. ¶¶ 377-379.

528. For approximately half of the more than 500 Form 3 cable systems that retransmitted a distant PTV signal in 1998 and 1999, the distant PTV signal was the system's first or only PTV signal. This meant that in 1998 and 1999, an average of approximately 2.1 million cable households (3.6 percent of total cable subscribers) received their <u>first</u> public television station as a distant signal. For these systems and their viewers, distant PTV signals were invaluable. F.F. ¶¶ 377-379. "A cable operator that failed to provide any public

television signal would have a slate of programming lacking an essential element by almost any standard." Fuller D.T. 3.

2. Benefits of distant public television programming to cable operators

(a) Rich diversity of unique programming

529. Public Television provides a variety of programming that is unduplicated elsewhere on commercial television. Public television is known not only for its science programming or cultural programming or educational programming or nature programming or history programming; it is known for providing an immense variety of the highest quality programming from these genres and more. F.F. ¶¶ 384-389. This is particularly valuable for cable operators because PTV's diverse programming promotes sampling; it draws viewers with a number of different interests and from a number of different audience segments. Tr. 3035 (Wilson).

530. PTV programming includes children's programming of the highest order, news programming, business and financial programming, investigative documentaries, history documentaries, performance programming, and science programming. It's a mix that covers literally almost every genre found on television. F.F. ¶¶ 384-411. The National Programming Service (NPS), the primary programming service through which PBS distributes programming to its member stations, provides the full variety of public television programming, including informational, fictional, performance, and children's programming, to the 350 PBS member stations. F.F. ¶¶ 349-359.

531. Public Television is unique among look-alike cable network channels in that each public television station offers a mix of the best of each programming genre represented by the look-alikes. F.F. ¶¶ 438-448. Public Television spends much more than any single look-alike cable channel to produce and acquire distinctive programming, and Public Television offers more original, first-run programming than any of the look-alikes. F.F. ¶¶ 449-452. One would have to aggregate the specialty channels to come close to the line-up of various genres found on one PTV channel. In addition, the specialty cable channels have to fill around-the-clock schedules with programming related only to their niches, such as science, culture, education, nature, or history. This inevitably leads to inclusion of programming that is not always the most recent or of the highest quality. Public television, on the other hand, offers programming in a multitude of genres, allowing it to select the "best of the best" programming in each area. F.F. ¶¶ 438-448.

532. In 1998 and 1999, PBS's diverse member stations -- some associated with universities, some with communities, and some with states -- placed particular emphases on programming directed toward their constituencies, and they all produced and acquired programming to supplement the national programming distributed by PBS, spending over 50 percent of their programming budgets on this local programming. F.F. ¶¶ 343, 362-364. Locally produced programming varies widely with the types of PTV stations and the communities they serve. F.F. ¶ 362-64. "[M]any of our Public Television stations have local public affairs programs that cover the local public policy interest stories of their region or

their community. Many do outdoor programming that looks at their local state and area in terms of environment and conservation and so forth. Some do cultural programming. Many have explored the local history of the communities through local programs. So it's a diverse mix of programs that you'll find at the local level in terms of production." Tr. 3013 (Wilson).

533. Public Television's children's programming -- which is wholly focused on providing commercial-free, non-violent, and above all, educational content -- was unduplicated and unrivaled elsewhere on television in 1998 and 1999. In 1998 and 1999, some children's programming directed to preschoolers was available on commercial television, but the programming was amusement- and entertainment-oriented, not educational. Public Television offered, and offers still, by far the largest line-up of uninterrupted, high caliber educational children's programming. F.F. ¶¶ 365-371, 400-408, 444.

534. PTV offers programming genres for adults that are not easily found elsewhere on television. PTV is the master of public affairs, news, and documentaries. F.F. ¶¶ 445-446. PTV also has performance programming that is not available elsewhere. By 1998 and 1999, A&E had stopped showing classical music works and operas, while PTV maintained a rich line-up of everything from Broadway productions to live symphony broadcasts to pop and rock music. F.F. ¶ 447. In addition, PTV continues to present independent films that are not available elsewhere and certainly are not available on channels with the same reach and viewer avidity as PTV. F.F. ¶ 448.

535. The non-commercial nature of public television is in itself beneficial to cable operators who seek to attract subscribers. One of the important advantages of public television programming is its lack of commercial interruptions. Through the testimony of Mr. Fuller, PTV demonstrated the benefits of being able to watch a program without the imposition of commercial interruptions, particularly when the programming is children's programming. There can be little question about the pleasures to cable subscribers (and therefore the benefits to cable operators) of having a commercial-free television alternative, particularly to parents of young children. F.F. ¶¶ 371, 407.

(b) Scheduling variety and low levels of duplication

536. A public television station can add important benefits of programming diversity even if the cable operator already is carrying a local public television signal. Additional public television stations add significant benefits of programming diversity, because the mix, content and scheduling of programming on different public television stations will differ substantially. F.F. ¶¶ 412-420. Public television stations have great freedom to determine their own schedules. When more than one signal is available in a given market, the stations of their own accord will invariably take steps to distinguish their programming mix and schedule from those of other stations by "counter-programming." F.F. ¶¶ 413-417.

537. Because PTV stations have different constituencies, locally produced and acquired programming varies from station to station. Thus, there is great content diversity among PTV stations even within the same geographic regions. F.F. ¶¶ 384-389.

538. Schedule diversity -- the fact that particularly in the daytime with children's programming, stations rarely have identical line-ups -- gives cable viewers more choices and more access to PTV programming at times when they want it. When a distant PTV signal was carried on the same cable system as a local PTV station in 1999, more than 91 percent of the time, different programming was shown on the two signals. This finding accords with earlier findings of approximately 88 percent non-duplication in 1993 and approximately 90 percent non-duplication in 1989. F.F. ¶¶ 415-417. Scheduling diversity is particularly beneficial and valuable in relation to PTV's children's programming. Some children are in school during the day, some are in day care centers, some can watch programs only in the afternoon, others can watch them only in the morning -- and scheduling diversity makes a good program available at different times of the day so that children with varying schedules all have a chance to watch it. PTV stations attempt to avoid head-to-head duplication with the children's programming on other PTV stations carried by the same cable system. F.F. ¶¶ 417-418.

(c) Widespread critical acclaim

539. Public Television is widely recognized as offering innovative, superior programming that is simply not found on commercial television. Reflecting this fact, in 1998 and 1999, PTV programs won more Emmy, duPont-Columbia University, and Peabody awards than all other broadcast or cable networks combined. F.F. ¶¶ 421-422. Television critics, too, enthusiastically welcomed the significant events in public television programming in 1998-99, and devoted substantial editorial coverage to them. F.F. ¶¶ 423-424.

540. Programming that is recognized as different and that stands out in terms of innovation, diversity of content, and approach, is of value to cable operators seeking to create a diverse menu of program options for their subscribers. F.F. ¶¶ 384-395. Critical acclaim also helps attract viewers because the more PTV programs are written about and discussed in the media, the more attention they attract and the more viewers seek them out. F.F. ¶ 424.

(d) Children's programming

541. In 1998 and 1999, PTV's educational children's programming, which was unavailable elsewhere on commercial television, was unquestionably valuable to cable operators in their pursuit of parents. PTV's children's programming is well known and sought out by parents for their children, and PTV is a trusted source of children's programs. F.F. ¶¶ 365-371, 400-408, 444.

542. PTV children's programming is valuable to cable operators because it creates viewing routines and loyalty unlike any other programming. F.F. ¶¶ 433-434. "[I]f you've got a kid or two at home who wants to see ARTHUR, they want to see it. And they want to see it every day. And it becomes a real routine in the household and something that you really expect and rely upon." Tr. 3051 (Wilson).

(e) Local/regional programming

543. Across the country in 1998 and 1999, PTV stations produced programming on local and regional political issues and featuring local performances. This programming of

local and regional interest was unavailable from any other television source. Cable systems, which tend to retransmit distant signals in their geographic region, obviously benefited from the retransmission of PTV signals airing unique programming on local and regional issues. F.F. ¶¶ 362-364, 409-411.

E. The Specialty Cable Channels Illustrate the Value and Benefit of Distant Public Television Programming to Cable Operators

544. "The increased entry of 'look-alike' cable networks, rather than eroding PTV's share of the distant signal marketplace, with at least equal likelihood reflects the perception of a valuable niche market established by PTV with potential for yet further expansion." 90-92 CARP Op. 123. Cable operators choose to carry cable networks with programming that is similar to programming on PTV because cable operators feel that viewers are interested in the programming, which thus means that cable operators feel that viewers are interested in the types of programming reflected on PTV stations. F.F. ¶¶ 438-448.

545. Public television aggregates the best of the best programming in multiple genres carried by the specialty channels. Public Television has more first-run programming, better-researched programming, and more costly programming than the programming on specialty cable channels. In addition, Public Television has educational children's programming, documentary programming, and performance programming, as well as locally produced programming that simply is not available on specialty cable channels. Accordingly, there can be no question that a single PTV channel is far more valuable to cable operators than any single specialty cable channel or even a collection of them. F.F. ¶¶ 438-452.

546. From 1992 to 1998, license fees for PTV's so-called "look-alikes" -- Discovery, A&E, The Learning Channel, and Nickelodeon -- more than doubled, while the license fees for all cable channels rose 17 percent. F.F. ¶¶ 453-454. If cable operators are willing to pay these increasing license fees to more and more cable channels that attempt to imitate Public Television, then that is a benchmark of the value of Public Television. F.F. ¶ 454.

F. The Attributes that Subscribers Seek in a Television Station or Cable Network Are Precisely Those Offered by Public Television

547. Subscribers have said in various surveys, including the WTBS study that PTV re-submitted in this proceeding, that they value a non-commercial environment, especially for children, and that is what PTV provides. F.F. ¶¶ 117-123, 433-436. The WTBS study reflects viewers' avidity or intensity of preference for the following programming types and attributes:

1	High quality programs
2	Limited commercial interruptions
3	Programs that the whole family can watch
4	A wide variety of programming
5	Programs that make you think
6	A program line-up that has something for everyone
7	Information through newsbreaks
8	Educational programs for children
9	Have a predictable schedule
10	Programs not available on the broadcast networks ABC, CBS, NBC, and Fox
11	Late night news
12	Show a lot of movies
13	Programs about animals and wildlife
14	Documentary programs
15	Mystery shows
16	Children-oriented programs

F.F. ¶ 120.

548. The programming on Public Television fits within the eight top-ranked program attributes in the WTBS cable subscriber survey, and public television programming also fits within those attributes rated 10th and 13th through 16th in the survey. The WTBS survey thus reflects a high viewer desire and avidity for the types of programming found on Public Television. F.F. ¶¶ 121-122.

549. PTV also presented the results of a nationwide evaluative survey of that measured their intensity of interest for various programming and showed that viewers care more about programming on public television despite its relatively lower viewing ratings. The study showed that PBS programs had more "appeal" to viewers and that higher rated commercial programming, such as police dramas, game shows, and comedies, had the lowest appeal. The study also showed that PBS programs had the most "impact" on viewers (the programming taught viewers something and touched their feelings) and that, again, higher rated programming had the lowest impact. F.F. ¶ 436.

G. The Expense of Public Television Programming Demonstrates Its Value to Cable Operators

550. The Panel in the 1990-1992 cable royalty proceeding found it relevant that PBS and local stations spent hundreds of millions of dollars on programming. 90-92 CARP Op. 114-15.

551. PTV stations spent $743 million in 1998 and $772 million in 1999 to produce and acquire programming, including nationally distributed programming from PBS.[40] F.F. ¶ 451. The programming budgets of specialty cable channels with some programming similar to PTV's were but fractions of the amounts spent on programming by PTV stations. PTV's 1998-99 total programming expenditures were nearly three times those of Nickelodeon, five times those of Discovery and A&E, and more than seven times those of The Learning Channel. F.F. ¶¶ 451-452.

552. In 1998 and 1999, cable operators retransmitting distant PTV signals clearly benefited from carrying PTV programming of such quality that cost from three to seven times the programming on any single cable network channel with a similar type of programming.

VI. THE DETERMINATION OF PUBLIC TELEVISION'S AWARD IN PRIOR DISTRIBUTION PROCEEDINGS

A. "Zone of Reasonableness" Established by Nielsen Viewing Shares, Adjusted Bortz Shares, and Instances of Carriage

553. In the 1983 proceeding, the Copyright Royalty Tribunal looked to instances of carriage, Nielsen viewing shares, and attitudinal surveys, adjusted upward for methodological bias against PTV, and set an award for Public Television that was "center[ed] [around] the zone of reasonableness" established by these measures. 51 Fed. Reg. at 12811. Since that time, both the CRT and the CARP have awarded shares to Public Television within the range of these same three measures. *See* 57 Fed. Reg. at 15303 (1989 decision); 90-92 CARP Op. 117, 122-24 (1990-92 decision).

554. The following table sets out the Nielsen viewing shares, adjusted Bortz shares, and instances of carriage data for 1983, 1989, and 1990-92, as well as the share awarded to PTV for those years. Also, to provide context, the table includes PTV's proposed award and corresponding data for 1998-99.

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[40] These figures increased from approximately $601 million of total programming expenditures in 1992. 90-92 CARP Op. 114-15.

Table 18 -- Awards and Key Underlying Data for PTV for 1983, 1989, and 1990-92

Year	Award	Nielsen Viewing Share	Adjusted Bortz Share	Instances of Carriage Share	Source
1983	5.2	4.4	3.4	7.6	51 Fed. Reg. at 12811; 57 Fed. Reg. at 15303
1989	4.0	3.1	2.3	7.4	57 Fed. Reg. at 15299-300, 15303; 90-92 CARP Op. 122
1990-92	5.5	2.0 - 4.0	5.7 - 6.3	8.0	90-92 CARP Op. 117, 122-24
1998-99 (Proposed Award)	**12.0**	**16.0**	**8.5 - 13.9**	**15.6**	F.F. ¶¶ 140, 183, 229

555. The awards in each year are bracketed by these three measures. For example, the 1989 award of 4.0 is close to the mathematical average (4.26) of the three measures. Similarly, the award for 1983 is nearly the mathematical average of these three measures (average of 5.13), and the same also is true for 1990-92 (average of 5.67). The Tribunal in the 1989 proceeding also specifically noted that the "special appeal of PBS, that it offers the cable system diversity, and that it has an intense viewership" were factors supporting an allocation to PTV "somewhat higher than its Nielsen share." 57 Fed. Reg. at 15303.

B. Prior Decisions Have Placed Principal Emphasis on Changes in these Three Measures as the Basis for PTV's Award

556. Prior decisions of the CRT and CARP have looked almost exclusively to changes in these three measures -- Nielsen viewing shares, Bortz shares, and instances of carriage -- as the core basis for setting PTV's royalty award. Even relatively small changes in these measures have been relied on as a basis for sizeable percentage changes in PTV's award.

557. In the 1990-92 proceeding, the CARP found that "[b]y all available comparable measures, PTV's share of the marketplace has increased since 1989." 90-92

CARP Op. 122. In reaching this conclusion, the Panel relied on changes in these three quantitative measures:

> [PTV's] Nielsen viewing data increased from 3.074% in 1989 to 4% in 1990 and 1992, with only the incomplete 1991 data below that level. Their unadjusted Bortz survey result increased from 1.3% in 1989 to 2.7% in 1990, 2.9% in 1991 and 3.0% in 1992, with even greater increases in the Bortz results for program popularity and promotional or advertising uses of PTV programming. Instances of carriage increased between 1989 and 1992 from 7.4% of basic signals to 8.0%.

90-92 CARP Op. 122.

558. The 1990-92 Panel characterized these changes as "consistently impressive quantitative results" and stated that "[w]hether called quality or niche programming, PTV's rebound since 1989 is shown by every objective measure." 90-92 CARP Op. 123.

559. The 1989 Tribunal followed the same approach in reducing PTV's share in that proceeding by more than 20 percent based on changes in these three measures. The CRT found that "[b]y every measure, PBS has declined from 1983 to 1989 in its proportional share of the distant signal marketplace." Specifically, the Tribunal based its conclusions on changes in these measures:

> Instances of carriage, which we agree should have been considered at 8.06% in 1983, still declined from 7.6% to 7.4% in 1989. Fees generated declined from 2.4% to 2%. The Nielsen viewing data declined from 4.380% to 3.074%. The Bortz survey result [as adjusted] declined from 3.40% to 2.3%.

57 Fed. Reg. at 15303.

560. The sections that follow address evidence of marketplace value and changed circumstances for Public Television derived from these same three measures that the CRT and CARP found critical in past proceedings in determining PTV's share.

VII. EVIDENCE OF MARKETPLACE VALUE IN 1998-99 SUPPORTS AN AWARD TO PUBLIC TELEVISION OF 12 PERCENT OF THE BASIC FUND

561. Market value is "the only logical and legal touchstone" for allocating royalty shares. 90-92 CARP Op. 23. Evidence of marketplace value submitted by all of the major claimant groups supports an award to Public Television of 12 percent of the Basic Fund.

A. Subscriber Instances of Carriage

562. PTV is unique among claimants in that its programming makes up an entire distant signal. As the 1990-92 Panel found, "[instances of carriage] data have particular

significance for PTV because a cable operator decision to import PTV is an affirmative action to import an entire programming category, unlike distant commercial signals." 90-92 CARP Op. 118.

563. "PBS occupies the entire broadcast signal. Each time a cable operator chooses to import a PBS signal, even if it is already carried locally, the operator has made his or her desire known." *1983 Cable Royalty Decision*, 51 Fed. Reg. at 12811. On average, over 98 percent of all Form 3 cable systems carried at least one public television signal in each of 1998 and 1999, and on average over that same period 23 percent of all Form 3 systems chose to retransmit a distant public television signal. F.F. ¶¶ 375-376.

564. An instance of carriage of a PTV distant signal represents a "vote" by the cable operator. Unlike any other program category, when a cable operator chooses to retransmit a distant PTV signal, it affirmatively chooses to use a portion of its limited channel capacity for a station that carries 100 percent PTV programming. The cable operator is thus exercising its judgment that the PTV signal -- and the PTV category of programming -- has value in terms of attracting and retaining subscribers.

565. A subscriber instance of carriage (or "subscriber instance") is defined as one subscriber having access to one distant signal. In contrast to instances of carriage data, subscriber instances discriminate among cable systems by size and also by whether the distant signal covers all subscribers or just some of them. Subscriber instances provide a more reliable measure of the underlying value of distant signals to cable operators and thus serve as more reliable inputs in determining appropriate royalty awards. F.F. ¶¶ 230, 236.

566. Subscriber instances of carriage are a valuable metric for determining PTV's share based on observations for 1998-99. Measured by events in the 1998-99 period, subscriber instances of carriage provide important insights into the judgments of cable operators about the value of PTV distant signals. F.F. ¶ 237.

567. As shown in Table 13, ¶ 239, above, the PTV shares of subscriber instances of carriage, adjusted to exclude non-compensable network programming and substituted programming on distant signal WGN, are 12.8 percent and 13.2 percent of the net pool for 1998 and 1999, respectively. When the adjusted PTV subscriber instances are calculated as a share of the Basic Fund only and not the 3.75 Fund and the Syndex Fund, adjusted PTV subscriber instances are 14.1 percent for 1998 and 14.6 percent for 1999. F.F. ¶¶ 239-240; C.L. ¶¶ 597-602.[41]

568. Parity, or equality of value, between PTV and non-PTV distant signals would support awards for PTV in the range of 14 percent of the Basic Fund. F.F. ¶ 241.

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41 Dr. Johnson's royalty calculations based on subscriber instances data are much more than mere time or volume measures, in that they take into account relative valuation between PTV and non-PTV instances and reflect actual choices of cable operators to carry a distant PTV signal. F.F. ¶ 247.

Awards of at least 10 percent would be justified even if the value of PTV subscriber instances were discounted by 30 percent compared to non-PTV subscriber instances, although it is implausible that there would be that much of a difference in relative value between the carriage of a PTV signal and a commercial signal.[42] F.F. ¶ 241.

B. Viewing Shares

569. Focusing directly on actual viewer behavior, the Nielsen viewing data presented by Program Suppliers purports to measure program valuations from a vantage point wholly different from the one embodied in subscriber instances analysis. The similarity between the PTV shares exhibited by the two dissimilar approaches adds further support for a PTV award of 12 percent. F.F. ¶ 248.

570. Viewing data are not a perfect measure of value to cable operators but have always been relied on in these proceedings as one input in determining awards. F.F. ¶ 249; C.L. ¶¶ 437-474. Not all viewing minutes are of equal value. Some programs or channels generate relatively high levels of interest and intensity of viewing; it is reasonable to assume that cable operators place a higher value on such viewing minutes. F.F. ¶ 249. While viewing data alone cannot adequately identify the value of particular programming in terms of attracting and retaining subscribers, viewing data together with other inputs and information -- such as high avidity for PTV and the fact that PTV offers programming that is diverse and different from what is conventionally found on commercial television -- may shed important light on marketplace value. F.F. ¶ 255; C.L. ¶ 474.

571. Public Television's average share of viewing minutes among viewers over two years of age was 16.7 percent in 1998-99. When this figure is adjusted to account for PTV's participation in only the Basic Fund,[43] the adjusted share becomes 18.6 percent for the two years combined. F.F. ¶ 253.

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[42] Parity or near parity between PTV and non-PTV subscriber instances is also implied by the CARP's 1990-92 award to Public Television. After considering the voluminous record in that proceeding, and based on all of the evidence before it, the CARP decided on a PTV royalty share of 5.5 percent of the Basic Fund. Although subscriber instances data was not explicitly used in the CARP's decision-making, the 5.5 percent award implied a 92.4 percent relative valuation for PTV subscriber instances. F.F. ¶ 242. If this relative valuation of 92.4 percent is applied to PTV's Basic Fund subscriber instances for 1998 and 1999, PTV's share of subscriber instances (and its implied royalty award) is 10.3 percent for 1998 and 10.7 percent for 1999. F.F. ¶ 243. Further, applying the relative valuation of 92.4 percent to the figures presented by Dr. Johnson in rebuttal, which provide corrected and more accurate subscriber instances data, the Basic Fund shares for PTV for 1998 and 1999 would be 13 percent and 13.5 percent, respectively. F.F. ¶ 243.

[43] The Basic Fund adjustment is necessary because the viewing minutes represent all viewing on distant signals retransmitted by cable operators. No effort was made by Nielsen to separate out viewing of signals for which fees were paid into the 3.75 Fund as opposed to all other types of signals. F.F. ¶ 252; C.L. ¶¶ 597-602.

572. The share of Sports 2+ viewing minutes for 1998-99 (8.7 percent) contrasts with the size of its award in the 1990-92 proceeding (nearly 30 percent). Because such a large disparity may distort the comparisons between viewing shares for other categories, Dr. Johnson presented calculations showing PTV's viewing shares subtracting Sports' viewing minutes and assuming an award to Sports of 30 percent. Table 15, ¶ 253, above, shows that with Sports excluded for all viewers, total minutes fall by 8.7 percent (the share attributable to Sports); the PTV share of remaining minutes rises to 18.3 percent, and the PTV viewing share applied to the Basic Fund is 14.2 percent. F.F. ¶¶ 253-254.

573. An assumption of parity between PTV and non-PTV viewing minutes is reasonable given that the viewing relationships between PTV and non-PTV programming are being examined as a measure of value. On a per-viewing-minute basis, parity in value between PTV and non-PTV programming would be expected once live sporting events are excluded. Indeed, because of strong viewer avidity within PTV programming, PTV programming (again on a per-viewing-minute basis) may be more valuable to cable operators than is true for movies, series, and local programming on commercial signals. F.F. ¶ 255.

574. Parity or near parity in viewing minutes corroborates the assumption of parity or near parity with regard to subscriber instances, given that the PTV shares are at similar levels in the two measures and viewing minutes are "carried" on subscriber instances. The larger the PTV viewing share, the larger the relative value of PTV subscriber instances. F.F. ¶ 256.

C. Adjusted Bortz Shares

575. While acknowledging its limitations, the CARP in the 1990-92 proceeding found the Bortz survey to be a valuable tool in determining awards:

> "Conducting a survey in such a short time, and asking the operators to categorize programming in an unfamiliar way, precludes its acceptance in <u>toto</u>. Considered as a whole, the Panel nonetheless finds the Bortz survey highly valuable in determining market value."

90-92 CARP Op. 66. The CRT similarly used the Bortz survey as an important source of evidence in making its allocation decisions. C.L. ¶¶ 480-481, 553-554.

576. Dr. William B. Fairley, a statistician, and Dr. Johnson, an economist, both testified that the Bortz survey is biased against Public Television in a number of important respects. F.F. ¶¶ 160-181. The biases against PTV in the 1998-99 Bortz survey primarily arise from the fact that PTV programming is not treated consistently with other program categories in the survey. If a cable operator carried only a PTV distant signal, and no commercial distant signals, it was dropped from the survey. If, on the other hand, a cable operator carried one or more commercial signals but no PTV signal, PTV was automatically assigned a "zero" value under the survey methodology. Also, the shares for the Program Suppliers category (syndicated series and movies) were systematically inflated because the

Bortz survey allowed cable operators to place a value on non-compensable programming on superstation WGN. F.F. ¶¶ 160-181.

577. Dr. Fairley used accepted statistical techniques to estimate the size of these major biases and to adjust the shares of all claimants to better reflect the true relative value of the program categories. He applied three alternative methodologies to adjust for these biases in the Bortz results, identified as Methods 1, 2, and 3. Dr. Fairley also calculated a "benchmark" value for the PTV share that provided a check on the results of his three methods and corroborated the adjusted results for PTV. F.F. ¶¶ 182-220. His resulting estimated shares for PTV under each method for 1998-99 are as follows:

Method	Average PTV 98-99 Share of the Basic Fund
1	13.9
2	8.5
3	9.0
Benchmark	10.3

578. In the 1990-92 cable royalty distribution proceeding, Dr. Fairley presented adjustments to the Bortz survey results based solely on a method very similar to Method 2. F.F. ¶ 188. Methods 1 and 3 are alternative, stand-alone methods that are new to this proceeding and were developed in part to respond to concerns raised by the CARP in the 1990-92 proceeding and by opposing claimants here. F.F. ¶ 188. Taken together, the results of Dr. Fairley's adjustments yield a value share for Public Television in the range of 8.5 - 13.9 percent of the Basic Fund, consistent with PTV's request for a 12 percent award. F.F. ¶ 183.

579. The adjusted estimates calculated by Dr. Fairley also incorporate an adjustment to take account of the fact that PTV only participates in the Basic Fund. The rationale for this adjustment is discussed in C.L. ¶¶ 597-605.

VIII. CHANGED CIRCUMSTANCES BETWEEN 1992 AND 1998-99 FURTHER SUPPORT A SUBSTANTIAL INCREASE IN PUBLIC TELEVISION'S SHARE

580. As discussed at ¶¶ 462, 556-559, above, the principle of "changed circumstances" is well established as a central tool for decisionmaking in these proceedings. "[I]t is entirely appropriate for the Tribunal to employ, as one of its analytical factors, the determination whether circumstances have changed [since the last award]." *NAB v. CRT*, 772 F.2d at 932.

581. In prior decisions of the Tribunal and in the 1990-92 CARP, changes in Nielsen viewing shares, Bortz results, and instances of carriage have been relied on as the principal considerations supporting changes (up or down) in PTV's royalty award. When those measures went down even modestly, as they did in 1989, PTV's share was reduced by more than 20 percent. Increases in those measures in 1990-92 similarly led to a substantial increase in PTV's share. C.L. ¶¶ 556-559. Under that established approach, applied to PTV

over numerous proceedings, here the fundamental changes in the relative share of these quantitative measures warrant a correspondingly significant increase in the PTV award.

A. Changes in Share of Instances of Carriage and Subscriber Instances

582. The Panel in 1990-92 found it significant that PTV's percentage of instances of carriage had increased by less than 1 percentage point from 1989 to 1990-92: "[i]nstances of carriage for PTV distant signals increased between 1989 and 1992 from 6.7% of all distant signals to 7.3%, and from 7.4% of basic signals to 8.0%." 90-92 CARP Op. 118. Similarly, the CRT in the 1989 proceeding relied on the fact that PTV instances of carriage had declined by 0.2 percent (from 7.6 percent to 7.4 percent) in reducing PTV's award for that year. 57 Fed. Reg. at 15303.

583. Between 1992 and 1998-99, PTV's share of instances of carriage among all distant signals nearly <u>doubled</u> from 7.2 percent in 1992 to 14.1 percent in 1998 and 14.0 percent in 1999. PTV's share of instances of carriage among basic signals also nearly doubled, from 8 percent in 1992 to 15.5 percent in 1998 and 15.6 percent in 1999. F.F. ¶¶ 227-229.

584. PTV's subscriber instances of carriage -- which provide a more accurate picture than instances of carriage because subscriber instances take into consideration varying sizes of systems and partially distant signals -- increased in absolute terms from 6.654 million in 1992 to 6.718 million in 1998 and 7.052 million in 1999. Because total subscriber instances decreased from 1992 to 1999, PTV's share of subscriber instances within the Basic Fund increased dramatically, from approximately 5.9 percent in 1992 to 11 percent in 1998 and 11.4 percent in 1999. F.F. ¶¶ 231-233.

B. Changes in Viewing Shares

585. The Panel in the 1990-92 proceeding found it significant that PTV's "Nielsen viewing data increased from 3.074% in 1989 to 4% in 1990 and 1992," an increase of less than 1 percentage point. 90-92 CARP Op. 122. Similarly, in the 1989 proceeding, the Tribunal pointed to the decrease in PTV's viewing share from 4.4 percent to 3.1 percent as evidence justifying a significant reduction in PTV's award. 57 Fed. Reg. at 15303.

586. Applying this same logic to PTV's viewing shares in 1998-99 leads to the conclusion that a substantial upward adjustment to PTV's award is warranted. PTV's viewing share has approximately <u>quadrupled</u> since the last proceeding, rising by more than 11 percentage points. In the Program Suppliers' Nielsen viewing studies, PTV's viewing share rose from approximately 4 percent in 1990-92 to 16.9 in 1998 among all households (16.5 percent among viewers 2+) and to 15.1 percent in 1999 among all households (16.8 percent among viewers 2+). F.F. ¶¶ 137, 140. These are by far the highest viewing shares ever recorded for Public Television since these proceedings began.

C. Changes in Adjusted Bortz Shares

587. Prior panels have also looked to changes in PTV's Bortz share as evidence of changed circumstances. C.L. ¶¶ 556-559.

588. The Bortz share for Public Television, as adjusted by Dr. Fairley, averaged 6.0 percent in 1990-92 (6.1 percent in 1990; 6.3 percent in 1991; and 5.7 percent in 1992). *See* 90-92 CARP Op. 117. Adjusted to apply only to the Basic Fund in that proceeding, the average PTV Bortz share in 1990-92 would have been 8.0 percent (though the 1990-92 Panel did not accept that adjustment). *Id.* at 120.

589. In 1998-99, PTV's adjusted Bortz share increased to an average of 10.5 percent of the Basic Fund (9.5 percent of the entire royalty pool). These values were calculated by averaging the results of Dr. Fairley's Methods 1, 2, and 3 for the combined years 1998-99. Fairley R.T. 32-33, 41-42, 49-50; F.F. ¶¶ 192, 202, 214.

590. The numbers in the prior two paragraphs are put in comparable terms, reflecting PTV's share of the Basic Fund. However, as noted, the Panel in the 1990-92 proceeding rejected an adjustment for PTV's non-participation in the 3.75 Fund, and the Bortz numbers on which it relied averaged 6 percent. For purposes of assessing the change in Bortz shares relevant to the proposed increase in PTV's award, the most pertinent comparison should be what the Panel previously relied on in that prior proceeding versus what this Panel accepts in this proceeding as the proper Bortz share. The evidence in this record supports an average adjusted Bortz share of 10.5 percent, an increase of 75 percent over what the 1990-92 Panel relied on in setting PTV's prior award.

D. Changes in Share of Program Minutes

591. The Commercial Television Claimants, through the testimony of Drs. Richard Ducey and Mark Fratrik, presented a comprehensive statistical study estimating the amount of programming, by program type, actually carried on distant signals by Form 3 cable systems in 1992 and 1998-99. Table 16, ¶ 259, above, summarizes the results of the study and shows the relative amounts of non-network distant signal programming in each category available to Form 3 cable subscribers for 1992 as compared with 1998-99.[44]

592. The time study reveals a substantial increase in the relative amount of Public Television programming available to Form 3 cable subscribers from 1992 to 1998-99 – <u>from 5.04 percent to 14.87 percent</u>. The changes in relative program time revealed in the time study were largely the result of the conversion of WTBS to a cable network in 1998. F.F. ¶¶ 260-261.

E. Increase in License Fees Charged by PTV Look-Alikes

593. License fees for cable network channels cannot serve as proxies for the absolute values of distant signals because of several significant differences, including the

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44 These final percentage measures take into account both the number of programming minutes and the number of subscribers with access to the stations airing the programs. Also, non-compensable network programming and substituted programming aired on the WGN national feed were excluded from the time study. F.F. ¶¶ 258-259.

ability of cable systems to obtain local advertising revenues from cable network channels and the fact that cable royalties are a limited pool that is well below the total value of all distant signals. F.F. ¶¶ 24-27, 455; 90-92 CARP Op. 121, 123. Nonetheless, license fees for cable network channels can be instructive on a relative basis.

594. Several cable network channels have been described as PTV "look-alikes" because they carry single types of programming found on PTV signals. Since 1992, license fees for these cable network channels that are similar in some respects to PTV have risen faster than the rate of increase for all cable network channels. From 1992 to 1998, license fees for Discovery, A&E, The Learning Channel, and Nickelodeon more than doubled, while the license fees for all cable channels rose 17 percent. F.F. ¶¶ 453-454.

IX. FINAL SHARE AWARD RECOMMENDATIONS

A. Overview

595. Based on all of the evidence submitted in this matter and for the reasons set forth in the sections below, the Public Television Claimants propose the following share allocations of the Basic Fund[45] for the combined years 1998-99:

Table 19 -- Proposed Share Awards of Basic Fund

Claimant	Share of Basic Fund (%)
Public Television Claimants	12
Program Suppliers	34.2 - 40.8
Joint Sports Claimants	28.2 - 34.8
Commercial Television Claimants	14.5
Devotional Claimants	1.2
Music Claimants	0.3 - 2.3
Canadian Claimants	Remainder

596. For the reasons discussed at ¶¶ 634-639, below, the Public Television Claimants further propose that the combined share of the Program Suppliers and the Joint Sports Claimants not exceed 69 percent.

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45 The Public Television Claimants do not participate in either the 3.75 Fund or the Syndex Fund and are therefore not proposing any recommended awards for those funds, other than to note that any decrease in a claimant group's share of the Basic Fund attributable to the Basic Fund adjustment discussed below should be offset by a corresponding increase in that claimant group's share of the 3.75 Fund. While theoretically an adjustment in the 3.75 Fund shares could also be made to certain categories for non-participation in the Syndex Fund, the effect of such an adjustment would be *de minimis,* given the fact that the Syndex Fund only represents 0.08 percent of total royalties in 1998 and 0.07 percent of total royalties in 1999. Kessler D.T. 19-20.

B. Mathematical Adjustments to Marketplace Measures to Account for PTV's Not Participating in the 3.75 or Syndex Funds

1. Description of and logic behind the adjustment

597. The shares recommended above incorporate adjustments made to relative shares derived from the Bortz survey, the Nielsen viewing study, the Rosston analysis, and/or subscriber instances data to account for the fact that the Public Television Claimants receive their royalties only from the Basic Fund and, unlike the other Phase I claimants, do not participate in the 3.75 or Syndex Funds.

598. During the years 1998 and 1999, the Basic Fund accounted for, respectively, 90.552% and 90.406% of the entire royalty pool. Fairley R.T. 32, 64; Kessler D.T. 10, 19-20; Tr. 6557-63 (Kessler). These percentages are calculated as follows:[46]

Table 20 -- Calculation of Basic Fund Adjustment Percentages

	1998	1999	Source
Form 1 Royalties	$314,864	$299,886	Kessler D.T. 10
Form 2 Royalties	$4,546,689	$4,260,686	Kessler D.T. 10
Form 3 Base Rate Fee Royalties	$90,729,920	$94,943,031	Kessler D.T. 19-20
Total Form 1, 2, and 3 Base Rate Fee Royalties	**$95,591,473**	**$99,503,603**	
3.75 Fund Royalties	$9,884,429	$10,480,110	Kessler D.T. 19-20
Syndex Fund Royalties	$89,292	$79,561	Kessler D.T. 19-20
Total Royalties	**$105,565,194**	**$110,063,274**	Kessler D.T. 10
Total Form 1, 2 and 3 Base Rate Fee Royalties / Total Royalties	**0.90552**	**0.90406**	

599. If the various studies and analyses put forward by the parties are to be used as bases for apportioning royalties, it logically follows that the estimates produced by those studies should be applied against the entire royalty pool to be distributed. None of the major studies distinguishes between the Basic, 3.75, and Syndex Funds in reporting its results. Because PTV only participates in the Basic Fund and does not participate in the 3.75 or Syndex Funds, its share of the Basic Fund must be proportionately higher in order to receive the share of total royalties suggested by the particular study or analysis at issue. Similarly, because each of the other Phase I categories will receive a percentage of the 3.75 Fund that exceeds the share estimated by the study (due to PTV's non-participation), the share of the Basic Fund allocated to each must be proportionately reduced.

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[46] This paragraph is intended to address the Panel's request that PTV provide a "statement setting forth the precise figures, with citations to the record, underlying the proffered adjustment." *See* Aug. 13, 2003 Order.

600. Unless this arithmetic adjustment is made, every claimant group aside from PTV would be credited in effect with a share higher than that suggested by the study at issue, and PTV alone would be credited with a share lower than the study results.

601. The adjustment involves a simple algebraic calculation, under which the estimated shares for all parties in the 3.75 Fund are increased (to take account of the fact that PTV does not participate in that fund), the PTV share of the Basic Fund is increased (so that PTV's share of total royalties equals its total estimated share), and the shares of the Basic Fund for all parties aside from PTV are slightly decreased. The net result of the adjustment, then, is that each party is properly credited with its estimated share of total royalties under any particular study or analysis. The adjustment is, in the aggregate, a wash, intended simply to ensure that each party is credited with its estimated share of total royalties -- and to prevent the anomaly that without the adjustment PTV would be credited with less than its estimated share of total royalties, while all other parties would be credited with more than their estimated shares.

602. The need for the Basic Fund adjustment was confirmed in the testimony of Drs. Johnson, Fairley, and Rosston. Dr. Johnson testified that "the logic of the [adjustment] is unimpeachable" and applied the adjustment to his subscriber instances and viewing share analyses. Johnson D.T. 28-29 (argument for adjustment is "strikingly clear and compelling"); Johnson R.T. 7-8 (subscriber instances), 9-13 (viewing shares), 18 (Bortz shares). The last step in Dr. Fairley's Bortz share adjustments was to convert shares of the total royalty fund into shares of the Basic Fund. Fairley R.T. 32, 42, 50, 63-64 (application of Basic Fund adjustment to Bortz shares). And Dr. Rosston agreed that, given that Public Television only draws from the Basic Fund and that his share estimates relate to the entire royalty pool, Public Television's share would need to be mathematically converted upward to arrive at Public Television's share of the Basic Fund only. Tr. 2860-62 (Rosston); PTV Demo Exs. 1, 2.

2. The reasoning of prior panels in rejecting the Basic Fund adjustment to the Bortz survey does not apply here

603. The CARP in the 1990-92 cable distribution proceeding refused to apply the Basic Fund adjustment to the Bortz survey results for PTV and the other parties, stating in a cryptic two-sentence paragraph that it was rejecting the adjustment "for the same reason given by the Tribunal in the 1989 decision." 90-92 CARP Op. 124.

604. The reasoning that was applied by the CRT in the 1989 proceeding and accepted by the CARP in the 1990-92 proceeding is not applicable here. In the 1989 cable royalty decision, the Tribunal found that "the very premise of this proposed adjustment was unproved" because nothing in the Bortz survey suggested "that respondents were considering their 1989 copyright payment as the fixed budget they were allocating." 57 Fed. Reg. at 15300. Here, PTV does not claim that its proposed Basic Fund adjustment is based on what the Bortz survey respondents believed. Rather, the adjustment is concerned with how the Bortz results (and all other study results) are to be applied across all claimant groups. This issue was not presented or considered in the Tribunal's 1989 decision. The "premise" that the Tribunal found "unproved" in the 1989 case has no logical relevance to the purpose for this adjustment.

605. In short, all agree that the Bortz survey says nothing about payments restricted to the Basic Fund or to the 3.75 Fund. Indeed, the Bortz survey does not mention the word "royalty" at all. Tr. 535-36 (Trautman) (affirming that cable operators are not asked to place a value on any particular royalty fund and that royalty funds are not mentioned). Rather, the survey asks cable operators: "how much do you think each such type of programming was worth, if anything, on a comparative basis, in terms of attracting and retaining subscribers." Trautman D.T. App. B (Q. 4a). The Bortz survey, focusing on relative values, leaves to others decisions about how the data are used, if at all, in royalty distributions. If the Bortz shares are to be used as a basis for allocating royalties, they must be applied against the entire royalty pool. It is a matter of simple logic that because PTV only participates in the Basic Fund portion of the pool, its relative share of that portion must increase so that it receives the share of the entire pool indicated by the Bortz results.

C. Rationale for Proposed Award for Each Claimant

1. Public Television

606. As described more fully in ¶¶ 561-594, above, the quantitative evidence in the record supports an award to the Public Television Claimants of 12 percent of the Basic Fund for 1998 and 1999.

607. The following table summarizes the various measures introduced by the Public Television Claimants, the Program Suppliers, the Joint Sports Claimants, and the Commercial Television Claimants, that converge on and support a 12 percent award for Public Television. (All of these shares have been converted to shares of the Basic Fund.) An award of 12 percent is consistent with the past practice in these proceedings of centering PTV's share within a "zone of reasonableness" established by Nielsen viewing shares, adjusted Bortz results, and instances of carriage. C.L. ¶¶ 553-555.

Table 21 -- 1998-99 Public Television Shares

Measure	1998-99 Share (%)	Source
Nielsen Viewing (2+)	18.6	¶¶ 251, 253
Nielsen Viewing (2+) (Sports Excluded)	14.2	¶¶ 253-254
Adjusted Bortz (Method 1)	13.9	¶¶ 192
Adjusted Bortz (Method 2)	8.5	¶¶ 202
Adjusted Bortz (Method 3)	9.0	¶¶ 214
Adjusted Subscriber Instances	14.4	¶¶ 239-240
Rosston	8.3	¶¶ 266
Proposed Award	**12.0**	

608. A 12 percent award is further supported by the following evidence of changed circumstances between 1992, when Public Television was awarded 5.5 percent of the Basic Fund, 61 Fed. Reg. at 55669, and 1998-99. All of these measures point to a significant increase in the PTV share.

Table 22 -- Change in Public Television Shares between 1992 and 1998-99

Measure	1992 Share (%)	1998-99 Share (%)	Source
Nielsen Viewing (Households)	4.0	16.0	¶¶ 140
Adjusted Bortz[47]	5.7	8.5 - 13.9	¶¶ 223, 607
Unadjusted Basic Instances of Carriage	8.0	15.6	¶¶ 229
Unadjusted Subscriber Instances	5.9	11.2	¶¶ 231
Program Time	5.0	14.9	¶¶ 259
Award (1992) & Proposed Award (1998-99)	**5.5**	**12.0**	

609. In addition to these quantitative measures, Public Television presented a wide variety of qualitative evidence establishing the important benefits that PTV programming offers to cable operators in attracting and retaining subscribers. F.F. ¶¶ 340-455. Among other things, this evidence demonstrated that:

- Public Television offers a mix of distinctive, diverse, highly acclaimed programming of types that cannot be found anywhere else -- and certainly not on a single channel. Public Television's educational, non-violent, and commercial-free children's programming -- from SESAME STREET to ARTHUR to BARNEY to WISHBONE -- is simply not available on advertising-supported commercial television. F.F. ¶¶ 382-411.

- PTV programming is precisely the type of unique, distinctive programming that cable operators value in assembling their bouquet of program options and in meeting the needs of their entire subscriber base. F.F. ¶¶ 390-395.

- 1998 and 99 were important years for Public Television programming, defined by major programming successes, awards, and acclaim, and the strengthening of PTV's children's programming line-up. F.F. ¶¶ 396-408.

- Cable operators benefited from the rich diversity and unique mix of innovative programming on PTV, from the scheduling variety and low levels of duplication provided with multiple PTV signals, and from critically acclaimed educational and cultural programming, children's programming, and regional programming. F.F. ¶¶ 412-24.

610. Prior panels have found this type of qualitative evidence of PTV's marketplace value to be important in determining share awards. *See, e.g.*, 57 Fed. Reg. at 15303 (factors relating to "special appeal of PBS, that it offers the cable system diversity, and

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[47] The adjusted Bortz number for 1992 reflects what the 1990-92 CARP accepted, without the 3.75 Fund adjustment. As discussed at ¶ 590, this is the most pertinent comparison because it reflects what the prior Panel actually relied on in setting the prior PTV award.

that it has an intense viewership" incorporated into PTV's valuation); 90-92 CARP Op. 123 ("nothing in the record contradicts the substantial evidence of new programming and promotional initiatives undertaken by PBS commencing in 1990;" "increased entry of 'look-alike' cable networks, rather than eroding PTV's share of the distant signal marketplace, with at least equal likelihood reflects perception of a valuable niche market established by PTV with potential for yet further expansion").

2. Program Suppliers

611. The evidence in the record supports an award to the Program Suppliers in the range of 34.2 percent to 40.8 percent of the Basic Fund.

612. The following table summarizes the various quantitative measures that converge on and support a 34.2 percent to 40.8 percent award for Program Suppliers.[48]

Table 23 -- 1998-99 Program Suppliers Shares

Measure	1998-99 Share (%)	Source
Nielsen Viewing (2+)	59.3	¶¶ 250
Adjusted Bortz (Method 1)	20.0	¶¶ 192
Adjusted Bortz (Method 2)	26.4	¶¶ 202
Adjusted Bortz (Method 3)	23.4	¶¶ 214
Rosston	48.9	¶¶ 264
Proposed Award	**34.2 - 40.8**	

613. An award in the range of 34.2 to 40.8 percent is further supported by the following quantitative evidence of changed circumstances between 1992, when the Program Suppliers were awarded 52.5 percent of the Basic Fund, 61 Fed. Reg. at 55669, and 1998-99. All of these measures point to a significant decrease in the Program Suppliers' share.

48 In this table, and in the corresponding tables for the Joint Sports and Commercial Television Claimants, the Nielsen and Rosston shares have not been converted to shares of the Basic Fund. This has been done for purposes of simplicity; if one wanted to apply the adjustment, one could do so by following the steps outlined in ¶ 601. Given that the reported shares in the Nielsen and Rosston studies for each of these claimants would be lower upon conversion to the Basic Fund (and higher as part of the 3.75 Fund), reporting the higher shares is conservative in this context.

Table 24 – Change in Program Suppliers Shares between 1992 and 1998-99

Measure	1992 Share (%)	1998-99 Share (%)	Source
Nielsen Viewing (Households)	80.0	60.0	¶¶ 140
Adjusted Bortz[49]	40.5	20.0 - 26.4	¶¶ 223, 612
Program Time	77.9	60.4	¶¶ 259
Award (1992) & Proposed Award (1998-99)	**52.5**	**34.2 - 40.8**	

614. Other evidence in the record further justifies a substantial decrease in the Program Suppliers' share. Most notably, the conversion of WTBS from a distant signal to a basic cable network on January 1, 1998, resulted in a significant and quantifiable shift in the types of distant signal programming cable operators collectively made available to their subscribers in 1998 and 1999. F.F. ¶¶ 58-65. WTBS was carried as a distant signal by about 95 percent of all Form 3 cable systems at the end of 1997; it was carried by less than 1 percent of those systems as a distant signal in the first half of 1998. F.F. ¶¶ 58-59. The total instances of carriage of independent stations by cable operators dropped from about 5000 total instances in 1992 to about 2300 in 1999, largely as the result of the conversion of WTBS. F.F. ¶ 64.

615. The vast majority of the programming on WTBS was from the Program Suppliers category. F.F. ¶¶ 61, 261. Copyright holders of programming on WTBS are now being compensated via the direct license fees that cable operators now pay to Turner Broadcasting System. These fees were significantly higher than the compulsory license royalty fees that cable operators had to pay to carry WTBS as a distant signal prior to 1998. F.F. ¶ 62.

616. Approximately the same percentage of cable systems carried WTBS as a cable network in 1998 as carried it as a distant signal in 1997. F.F. ¶ 63. Any reduction in the Program Suppliers' share of compulsory license royalties is likely to be more than offset by the Program Suppliers' share of the direct license fees paid to Turner Broadcast System beginning in 1998 for the carriage of WTBS. F.F. ¶¶ 62-63.

617. With the conversion of WTBS, WGN became by far the most widely carried distant signal in 1998-99. WGN carried primarily Program Suppliers' programming, but over half of the programming on distant signal WGN, as carried outside the Chicago area, is not compensable in this proceeding because it was substituted programming not part of WGN's local broadcast signal. F.F. ¶¶ 48-51.

618. To the extent movies and syndicated series were valued by cable operators in 1998-99, they were available on TBS and numerous other cable networks. For example, in 1998, the following cable networks carried either or both movies and syndicated

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[49] As discussed above (n.47), the adjusted Bortz numbers shown for Program Suppliers and for the other parties in the following sections do not include the 3.75 Fund adjustment rejected in the 1990-92 proceeding.

programming: TBS, Discovery, USA, TNT, Nickelodeon (Nick at Nite), A&E, TNN, Lifetime, Family, The Learning Channel, American Movie Classics, VH-1, Cartoon Network, History Channel, Disney, Comedy Central, E!, Sci-Fi, FX, BET, Court TV, TV Land, Bravo, Turner Classic Movies, Hallmark, WE, Game Show Network, Oxygen, Toon Disney, BBC America, Noggin, Independent Film Channel, SoapNet, National Geographic, Fox Movie Channel, International Movie Channel, and Ovation. In 1998 and 1999, the cable channels A&E and Lifetime also carried syndicated programming and movies of the types that were available on broadcast signals. In addition to TBS, USA, A&E, and Lifetime, Nickelodeon (Nick at Nite) and ABC Family (formerly Fox Family) carried significant syndicated programming. F.F. ¶¶ 87-88. Thus, distant signals were not important sources of syndicated series or movies in 1998-99.

619. Of the cable networks listed above, the following launched after 1992: TBS, TV Land, Game Show Network, FX, Turner Classic Movies, Fox Movie Channel, Independent Film Channel, SoapNet, WE, Oxygen, Ovation, Toon Disney, BBC America, Noggin, National Geographic, History Channel, Sci-Fi (9/92), and Cartoon Network (10/92). The 1990s saw the launch of specialized cable channels carrying syndicated programming, including TV Land, which shows syndicated re-runs 24 hours per day, and the Game Show Network, which as its name implies carries only game shows. F.F. ¶ 89.

620. In 1998 and 1999, movies were available on premium cable channels, pay-per-view cable services, and on network television. Movies also are available in theaters, on videotape and DVD for home use, and at campus screenings. Furthermore, in 1998-99, movies became a less important source of syndicated programming to independent broadcast stations as more cable networks licensed movies. F.F. ¶ 90.

621. Almost all popular syndicated shows end up on cable networks. Some series go straight to cable without being shown on local broadcast stations. Syndicated shows that are on local broadcast stations also can be on cable networks at the same time. Local broadcast stations are the last stop for syndication of series and movies after they have been syndicated to other outlets. F.F. ¶ 91.

622. There is a 70 to 80 percent probability that a syndicated program carried on a distant signal will duplicate the <u>same</u> syndicated program also found in the local market. Further, because of advertising considerations, syndication typically requires that a syndicated program air in the same day part in each local market, and that the <u>same</u> episode be aired in each local market where the syndicated program is carried on a particular day. As a result, if a distant signal includes a syndicated program that has also been syndicated in the local market (at least a 70 to 80 percent probability), the episodes will be identical on any given day and likely will also be aired in the identical day part. F.F. ¶¶ 40-41.

623. In short, given the widespread availability of movies and syndicated series on numerous cable networks and other sources, the carriage of movies and syndicated programming on distant signals did not meaningfully contribute to the ability of cable operators to attract and retain subscribers in 1998-99.

3. Joint Sports Claimants

624. The evidence in the record supports an award to the Joint Sports Claimants in the range of 28.2 percent to 34.8 percent of the Basic Fund.

625. The following table summarizes the various quantitative measures that converge on and support a 28.2 percent to 34.8 percent award for the Joint Sports Claimants.

Table 25 -- 1998-99 Joint Sports Claimants Shares

Measure	1998-99 Share (%)	Source
Nielsen Viewing (2+)	8.7	¶¶ 250
Adjusted Bortz (Method 1)	42.4	¶¶ 192
Adjusted Bortz (Method 2)	40.2	¶¶ 202
Adjusted Bortz (Method 3)	44.3	¶¶ 214
Rosston	32.7	¶¶ 264
Proposed Award	**28.2 - 34.8**	

626. An award in the range of 28.2 to 34.8 percent is further supported by the following quantitative evidence of changed circumstances between 1992, when the Joint Sports Claimants were awarded 28.2 percent of the Basic Fund, 61 Fed. Reg. at 55669, and 1998-99. These measures point to a share for the Joint Sports Claimants that is the roughly the same as or at most slightly higher than the share awarded for 1992.

Table 26 -- Change in Joint Sports Claimants Shares between 1992 and 1998-99

Measure	1992 Share (%)	1998-99 Share (%)	Source
Nielsen Viewing (Households)	7.0	8.5	¶¶ 140
Adjusted Bortz	37.7	40.2 - 44.3	¶¶ 223, 625
Program Time	4.8	4.9	¶¶ 259
Award (1992) & Proposed Award (1998-99)	**28.2**	**28.2 - 34.8**	

627. The Joint Sports Claimants seek an award equal to their unadjusted Bortz share (37 percent for 1998 and 39 percent for 1999) and have not claimed for any greater amount.

628. The qualitative evidence in the record does not support an increase in the Sports award. To the extent live sports programming was important to cable operators for the purpose of attracting and retaining subscribers, there were many more and better sources for doing so than importing distant signals. In 1998-99, live professional team sports were available from a wide variety of alternative sources, including national broadcast networks, national cable networks, local broadcasters, and regional sports network stations. F.F. ¶¶ 93-97.

629. In November 1993, ESPN launched ESPN2, which carries sports programming similar to the programming on ESPN and by 1998 was carried by Form 3 cable

systems nearly as universally as was ESPN. So when evaluating the additional benefit of a distant signal with sports, a cable operator would have to take into account that its cable system likely already carries ESPN and ESPN2. F.F. ¶ 94.

630. Regional sports networks on cable provide substantial numbers of games of regionally important teams. From 1992 to 1998-99, regional sports cable networks increased in prominence relative to local broadcasters, airing many more baseball games and other live sports. F.F. ¶ 95.

631. The Joint Sports Claimants correctly point out one significant changed circumstance -- the carriage of distant Fox signals by cable systems without access to a local Fox signal. In those limited circumstances, the distant Fox signal, with its wide variety of top-rate live sports programming, would be highly valued by cable operators. The number of such occurrences, however, is relatively small (only about 100 systems carried only a distant Fox signal). F.F. ¶¶ 52-57.

632. Any increase in value to the Sports category from carriage on Fox is offset, at least in part, by the increased availability of live sports programming on regional sports networks and the decrease in the number of Chicago Cubs and Bulls games licensed for broadcast on WGN between 1992 and 1998-99. F.F. ¶¶ 96-97.

633. In addition, any gains in value attributed to particular live sporting events occurring in 1998 and 1999, *e.g.*, the McGwire-Sosa home run race and Michael Jordan's "final" season, are offset by the loss of WTBS sports programming, the retirement of Michael Jordan in 1998, and the lockout-shortened NBA season in 1998-99. *See* Tr. 6121-22, 6124, 6128-29 (Allen). In addition, no evidence was presented that distant signal sports programming in 1998-99 was more valuable than the sports programming available in 1990-92, which included three full seasons of Michael Jordan, the NBA champion Chicago Bulls, and the Atlanta Braves in a pennant race. *See* 90-92 CARP Op. 92-94.

4. Combined Program Suppliers and Sports

634. The shares recommended for Program Suppliers and the Joint Sports Claimants are presented as ranges primarily because of the difficulty in pinpointing more precise shares in the face of widely divergent Nielsen and adjusted Bortz results for these two categories. The evidence in the record does, however, support a more precise estimate of the <u>combined</u> award to Program Suppliers and Sports of 69 percent or less.

635. This combined award can be used as a check in determining the proper awards for Program Suppliers and Sports; if the Panel decides to make an award to Sports at the high end of its proposed range, then it should make an award to Program Suppliers at the low end of its proposed range, so that the combined award does not exceed 69 percent.

636. The following table summarizes the various quantitative measures that converge on and support a combined award of 69 percent or less for the Program Suppliers and Joint Sports Claimants.

Table 27 -- 1998-99 Combined Program Suppliers and Sports Shares

Measure	1998-99 Share (%)	Source
Nielsen Viewing (2+)	68.0	¶¶ 250
Adjusted Bortz (Method 1)	62.4	¶¶ 192
Adjusted Bortz (Method 2)	66.6	¶¶ 202
Adjusted Bortz (Method 3)	67.7	¶¶ 214
Rosston	81.6	¶¶ 264
Proposed Award	**69.0**	

637. A combined award of 69 percent or less is further supported by the following quantitative evidence of changed circumstances between 1992 and 1998-99. These measures show a remarkably consistent pattern pointing to a substantial decrease in the combined award from 80.7 percent in 1992 to 69 percent or less in 1998-99.

Table 28 -- Change in Combined Program Suppliers and Sports Shares between 1992 and 1998-99

Measure	1992 Share (%)	1998-99 Share (%)	Source
Nielsen Viewing (Households)	87.0	68.5	¶¶ 140
Adjusted Bortz	78.2	62.4 - 67.7	¶¶ 223, 636
Program Time	82.7	65.3	¶¶ 259
Award (1992) &Proposed Award (1998-99)	**80.7**	**69.0**	

638. Looking at the combined awards to the Sports and Program Suppliers is justified, among other reasons, because of the impact of the WGN adjustment on those two categories. Dr. Fairley's adjusted Bortz shares for the Joint Sports Claimants ranged from 40.2 percent to 44.3 percent of the Basic Fund, depending on the method used. F.F. ¶¶ 192, 202, 214. These shares are higher than the shares reported by Bortz, primarily because most of the share value lost from the Program Suppliers categories due to the WGN adjustment is captured by Joint Sports Claimants. *See* PTV Exs. 8-R, 9-R, and 10-R. Thus, the more the Panel decides to credit the WGN adjustment, the greater the share for Sports within its range and the less the share for Program Suppliers within its range.

639. Further, there is a fundamental inconsistency between the Bortz and Nielsen measures, with Sports receiving the highest adjusted Bortz share and one of the lowest Nielsen shares, and Program Suppliers receiving a relatively low adjusted Bortz share and the highest Nielsen share. F.F. ¶¶ 192, 202, 214, 250. Because of this inconsistency, if the Panel decides to give weight to both measures, it must do so in a balanced way. Relying heavily on the Bortz share in determining the Sports award and on the Nielsen share in determining the Program Suppliers award would have the effect of undervaluing the programming of the remaining claimant groups. This is not to suggest a formal linkage or ceiling on the combined share of the two separate claimant groups. But looking at their combined shares is a helpful metric.

5. Commercial Television Claimants

640. The evidence in the record supports an award of 14.5 percent of the Basic Fund to the Commercial Television Claimants.

641. The following table summarizes the various quantitative measures that converge on and support a 14.5 percent award to the Commercial Television Claimants.

Table 29 -- 1998-99 Commercial Television Shares

Measure	1998-99 Share (%)	Source
Nielsen Viewing (2+)	14.6	¶¶ 250
Adjusted Bortz (Method 1)	20.8	¶¶ 192
Adjusted Bortz (Method 2)	16.4	¶¶ 202
Adjusted Bortz (Method 3)	15.7	¶¶ 214
Rosston	10.9	¶¶ 264
Proposed Award	**14.5**	

642. An award of 14.5 percent is further supported by the following quantitative evidence of changed circumstances between 1992, when the Commercial Television Claimants were awarded 7.2 percent of the Basic Fund, 61 Fed. Reg. at 55669, and 1998-99. These measures point to a substantial increase in the Commercial Television Claimants' share from that awarded for 1992.

Table 30 -- Change in Commercial Television Shares between 1992 and 1998-99

Measure	1992 Share (%)	1998-99 Share (%)	Source
Nielsen Viewing (Households)	8.0	14.7	¶¶ 140
Adjusted Bortz	12.1	15.7 - 20.8	¶¶ 223, 641
Program Time	8.8	13.0	¶¶ 259
Award (1992) & Proposed Award (1998-99)	**7.2**	**14.5**	

643. Qualitative evidence was presented establishing that station-produced local news programming is valued by distant cable operators in a variety of circumstances, especially given the fact that distant carriage of non-superstations is generally clustered within regions around the home city of the distant station where news programming about the distant station's home city would be of greatest relative interest. Ducey D.T. 13-14; Alexander D.T. 2-5; NAB Ex. 7. This clustering effect continued to increase in 1998 and 1999. Ducey D.T. 13-14; DeFranco D.T. 3.

644. The Rosston regression analysis yielded an implied share of royalties for the Commercial Television Claimants of 10.93 percent for 1998-99. Rosston D.T. 23. Dr. Rosston testified that this share represented a lower bound, given that "there may be additional value in the station's work in putting together a separate and identifiable channel of programming that attracts subscribers, but that value is not reflected in the regression estimates for Commercial Television." Rosston D.T. 24.

6. Canadian Claimants

645. Insufficient evidence has been presented in this matter to recommend an award to the Canadian Claimants other than that (i) the Canadian Claimants should receive whatever Basic Fund royalties remain after the shares have been established for the other claimants and (ii) the Canadian Claimants' share should be no less than their 1991-92 award.

646. The Canadian Claimants contend that their award should be based on the amount paid in royalties for distant Canadian signals (subject to reduction for the value of U.S. Sports and Program Suppliers programming not included within their claim). While recognizing the problems with the fees-generated approach and the fact that it has been repeatedly rejected in past cable royalty distribution proceedings, the Canadian Claimants argue that the CARP should nevertheless apply the approach in determining the Canadian Claimants' share here, given that they are a unique claimant group and that none of the other studies or methods presented in this proceeding provides a reliable way of determining the value of Canadian programming. F.F. ¶¶ 298-301. Nevertheless, because this approach is not based on the relative marketplace value of different distant signal programming, it should be rejected, for all the reasons stated in ¶¶ 304-323, 499-505, and in past proceedings.

647. The Canadian Claimants were awarded 0.96 percent of the Basic Fund for 1991-92 (after having settled their claim for 1990). 61 Fed. Reg. at 55669.

648. Canadian programming comprised 1.0 percent of the total programming time on distant signals in 1992. That percentage increased to 3.68 percent in 1998-99, in large part because the total size of the distant signal programming universe decreased when WTBS converted to a cable network in 1998. Similar percentage increases can be seen in instances of carriage of Canadian signals. F.F. ¶¶ 259, 299.

649. In light of these changed circumstances due to the WTBS conversion, a decrease in the Canadian Claimants' share does not seem justified, and an increase might be appropriate, though there is insufficient evidence in the record to quantify that increase (particularly given the added layer of complexity in quantifying the U.S. Sports and Program Suppliers programming on Canadian distant signals). Accordingly, PTV recommends that the Canadian Claimants be allocated a remainder amount after the other parties' shares are established.

7. Devotional Claimants

650. The Devotional Claimants should receive their settlement share of 1.2 percent of the Basic Fund. *See* Stipulation of Settlement of Claim of Devotional Claimants to 1998 and 1999 Cable Royalty Funds, No. 2001-8 CARP CD 98-99 (Nov. 5, 2002).

8. Music Claimants

651. The evidence in the record supports an award to the Music Claimants in the range of 0.3 percent to 2.3 percent of the Basic Fund.

652. The Music Claimants received 4.5 percent of the Basic Fund for 1990-92 as the result of a settlement agreement reached between the parties. 61 Fed. Reg. 55661, 55669. They urge the Panel to use that negotiated share as a benchmark and then to increase that share in light of a purported increase in relative music use across all categories.

653. The settlement agreement with the Music Claimants states specifically that it is not to be used as precedent or for any purpose other than settlement. Reliance on such a settlement agreement as substantive evidence in this proceeding is contrary to the express terms of the agreement as well as general policy considerations that would be undermined if parties could settle one proceeding and rely on that settled amount as a purported benchmark of marketplace value in a later litigated proceeding. *See* Joint Motion for Declaratory Ruling Concerning the Benchmark for the Music Award, No. 2001-8 CARP CD 98-99 (Jan. 16, 2003); Fed. R. Evid. 408.

654. In addition, use of a settlement share as a benchmark is improper because (i) the 1990-92 settlement share was not based on an analysis of broadcast license fees and total broadcasting expenses, since the last litigated share for Music was in 1983, and (ii) other factors entered into claimants' decisions to settle with the Music Claimants so that the 4.5 percent settlement share does not reflect a relative market valuation of contribution of music to distant signal programming. F.F. ¶ 324 n.28.

655. There has been no consistent upward trend in music use across the claimant categories between 1992 and 1998-99. F.F. ¶¶ 328, 330. The time study introduced by the Music Claimants purporting to show an increase in music use has numerous flaws and cannot be relied on. F.F. ¶¶ 326-329.

656. In every prior proceeding in which an award to the Music Claimants has been published, that award has been taken "off the top," with the remaining categories sharing in the residual. 45 Fed. Reg. 63026, 63040 (Sept. 23, 1980) (1978 decision); 47 Fed. Reg. 9879, 9894 (Mar. 8, 1982) (1979 decision); 48 Fed. Reg. 9552, 9566-67 (Mar. 7, 1983) (1980 decision); 51 Fed. Reg. 12792, 12812 (Apr. 15, 1986) (1983 decision); 57 Fed. Reg. 15286, 15288 (Apr. 27, 1992) (1989 settlement); 61 Fed. Reg. 55653, 55661-62 (Oct. 28, 1996) (1990-92 settlement); Tr. 4958-59 (Boyle). Because music is an integral component of almost all programming, it is extraordinarily difficult to attribute music's share to one program category more than another, and attempting to do so introduces greater cost and complexity into these proceedings. Gruen R.T. 32; Boyle R.T. 4-7; Tr. 4958-59 (Boyle).

657. If the Panel decides to follow this past practice of taking the Music Claimants' share "off the top," the best method for doing so is to compare the amounts that the Music Claimants receive from broadcasters and cable networks with the total programming expenses of those same broadcasters and cable networks. This was the general concept adopted by the CRT in the 1978 cable royalty distribution proceeding. F.F. ¶¶ 331. Under this method, the share of music licensing fees to expenses ranges from 1.49 percent to 2.33 percent. F.F. ¶¶ 332.

658. If the Panel decides to determine a separate music share for each claimant category, it should look to the most recent Section 118 arbitration proceeding for guidance in

determining the music share of Public Television. The most recent Section 118 proceeding established the license fees that public television must pay to ASCAP and BMI for the public performance of copyrighted musical works on PTV broadcast stations. F.F. ¶¶ 333-336. The fees set by the CARP in that proceeding were marketplace fees that were not discounted because of public broadcasting's non-commercial nature. Tr. 4982-86 (Boyle); 63 Fed. Reg. 49823, 49825, 49834-35 (Sept. 18, 1998) (determining "reasonable" fee meant determining "fair market value").

659. In its decision, the CARP found and the Librarian accepted that music use on public broadcasting remained constant from 1992 through 1996 and indeed had remained constant since 1978. 63 Fed. Reg. at 49831-32. The Panel accepted "Public Broadcasters' conclusion that overall music usage has remained constant in recent years" and found that it was "reasonable to presume that overall music usage by Public Broadcasters has remained substantially constant since 1978." Report of the Panel, Docket No. 96-6 CARP NCBRA, at 32. Mr. Wilson testified that the flat trend in music use on Public Television observed through 1996 continued through 1998 and 1999. F.F. ¶ 330.

660. The annual music licensing fee set in the Section 118 proceeding was 0.26 percent of public broadcasting's average 1998-99 revenues. Even subtracting revenues from federal and state governments, public broadcasting's music license fee as a percentage of average 1998-99 private revenues (non-tax-based revenues) was 0.44 percent. F.F. ¶ 336.

661. Public broadcasting's music licensing fee also may be viewed as a percentage of programming expenditures. Public broadcasting's music fee as a portion of its programming expenditures was 0.59 percent for 1998 and 0.56 percent for 1999. Public Television's share of the total music licensing fee may be assumed to be proportional to its share of total programming expenditures. F.F. ¶ 337.

D. Corroboration of Proposed Shares

662. As a check on the reasonableness of the shares recommended above, the following table includes the shares from the three principal studies submitted by the opposing claimants: the Bortz survey (Joint Sports Claimants); the Nielsen viewing study (Program Suppliers), and the Rosston regression analysis (Commercial Television Claimants). These shares are averaged together and then adjusted to take into account the Devotional Claimants' settled share, the proposed award to the Music Claimants, the Canadian Claimants' remainder share, and the fact that PTV only participates in the Basic Fund.

Table 31 -- Shares of Basic Fund for All Claimants Using Average of Bortz, Nielsen, and Rosston Results

Claimant	1990-92 Basic Fund Award[50] (%)	Average of Fairley Adjusted Bortz Shares, Methods 1 and 3 (unadjusted for Basic Fund)[51] (%)	Nielsen Viewing Shares (Age 2+, unadjusted for Basic Fund)[52] (%)	Rosston Shares (DSE > 0, unadjusted for Basic Fund)[53] (%)	Average of Adjusted Bortz, Viewing, and Rosston Shares[54] (%)	Basic Fund Adjusted Average[55] (%)	Basic Fund Adjusted Average (including Music at 2.3%)[56] (%)	Basic Fund Adjusted Average (including Music at 2.3%, PTV at 12%, Remainder to Canadian)[57] (%)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
PTV	5.5	10.33	16.7	7.54	11.52	12.8	12.5	12.0
Program Suppliers	52.6	21.93	59.3	48.87	43.37	42.7	41.7	41.7
Sports	28.2	43.89	8.7	32.65	28.41	28.0	27.4	27.4
Commercial Television	7.2	18.47	14.6	10.93	14.67	14.5	14.2	14.2
Devotional	1.2	3.89	0.6	0	1.5	1.2	1.2	1.2
Canadian	1.0	1.5	N/A	0	0.5	0.8 (remainder)	0.7	1.2
Music	4.5						2.3	2.3
TOTAL	100.2	100.0	99.9	100.0	100.0	100.0	100.0	100.0

663. While the Public Television Claimants acknowledge that the Panel may decide to give different weights to these various approaches, the results of this combined average, as adjusted, nevertheless corroborate the shares recommended by the Public Television Claimants. Taking an average in this context is appropriate, at least as a rough

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50 61 Fed. Reg. at 55669.

51 Fairley R.T. 32, 49. Methods 1 and 3 were chosen because they are Dr. Fairley's preferred methods and avoid the concerns raised regarding the estimation of missing values for programming not actually carried. F.F. ¶¶ 188, 194, 216.

52 F.F. ¶¶ 250.

53 F.F. ¶¶ 264.

54 F = (C + D + E)/3.

55 G(PTV) = F(PTV)/0.9 Basic Fund adjustment factor. The increase of 1.28 to the PTV share is then subtracted from Sports (-0.42), Program Suppliers (-0.64), and Commercial Television (-0.22) on a proportional basis. Devotional is reduced (-0.3) to its settled share, and Canadian is given the remaining share of 0.8 so that the column adds to 100.

56 Music is given its maximum proposed share of 2.3 and then the shares of the other categories are adjusted on a proportional basis so that the column adds to 100.

57 PTV is reduced by 0.5 to its claimed share of 12.0 and Canadian's remainder share is increased by 0.5 to 1.2. All other categories remain the same.

benchmark, given that prior panels have tended to center their awards within a "zone of reasonableness" established by the results of the studies that they credit. C.L. ¶¶ 553-555.

CONCLUSION

664. For the reasons set forth above, and as is fully supported by the entire record of this proceeding, the Public Television Claimants should be awarded a share of 12 percent of the Basic Fund for each of the two years at issue in this proceeding.

Respectfully submitted,

Timothy C. Hester

Timothy C. Hester
Ronald G. Dove, Jr.
Russell D. Jessee
COVINGTON & BURLING
1201 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2401
(202) 662-6000

Paul Greco
Vice President & Deputy
General Counsel
PUBLIC BROADCASTING SERVICE
1320 Braddock Place
Alexandria, Virginia 22314
(703) 739-5000

Attorneys for
Public Broadcasting Service

August 20, 2003

CERTIFICATE OF SERVICE

I, Ronald G. Dove, Jr., hereby certify that I have caused copies of the PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF THE PUBLIC TELEVISION CLAIMANTS, to be delivered August 20, 2003, to the following claimants participating in these Phase I proceedings:

ASCAP

I. Fred Koenigsberg
Carol A. Witschel*
White & Case
1155 Avenue of the Americas
New York, NY 10036-2787

[By first overnight delivery]

Joan M. McGivern
Samuel Mosenkis*
ASCAP
One Lincoln Plaza
New York, NY 10023

[By first overnight delivery]

BMI

Marvin L. Berenson
Joseph J. DiMona
Judith M. Saffer
Marc D. Ostrow
Broadcast Music, Inc.
320 West 57th Street
New York, NY 10019

[By hand to Philip Mause]

Michael J. Remington
Philip J. Mause*
Jeffrey J. Lopez
Adam L. Barea
Drinker Biddle & Reath LLP
1500 K Street, N.W., Suite 1100
Washington, D.C. 20005

[By hand]

SESAC

Patrick Collins
SESAC, Inc.
55 Music Square East
Nashville, TN 37023

[By first overnight delivery to John Beiter]

John C. Beiter*
Loeb & Loeb
45 Music Square West
Nashville, TN 37203

[By first overnight delivery]

Canadian Claimants
L. Kendall Satterfield*
Richard M. Volin
Finkelstein, Thompson & Loughran
1050 30th Street N.W.
Washington, D.C. 20007

[Two copies by hand]

Program Suppliers
Gregory O. Olaniran*
Michael E. Tucci
Stinson Morrison Hecker LLP
1150 18th Street, N.W., Suite 800
Washington, D.C 20036-3816

[Two copies by hand]

Joint Sports Claimants
Thomas J. Ostertag
Senior Vice President & General Counsel
Office of the Commissioner of Baseball
245 Park Avenue
New York, NY 10167

[By hand to Christopher Winters]

Ritchie Thomas
Judith Jurin Semo
Squire, Sanders & Dempsey
1201 Pennsylvania Ave., N.W.
Washington, D.C. 20004

[By hand to Christopher Winters]

Robert Alan Garrett
James Cooper
Christopher Winters*
Arnold & Porter
555 Twelfth Street, N.W.
Washington, D.C. 20004-1206

[Two copies by hand]

Philip R. Hochberg
Piper Rudnick LLP
901 Fifteenth Street, N.W.
Suite 700
Washington, D.C. 20005

[By hand to Christopher Winters]

National Association of Broadcasters
John I. Stewart, Jr.*
Parul Desai
Michael Lazarus
Crowell & Moring, LLP
1001 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

[Two copies by hand]

Henry L. Baumann
Bart Stringham
National Association of Broadcasters
1771 N Street, N.W.
Washington, D.C. 20036

[By hand to John Stewart]

Ronald G. Dove, Jr.

COVINGTON & BURLING

1201 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004-2401
TEL 202.662.6000
FAX 202.662.6291
WWW.COV.COM

WASHINGTON, DC
NEW YORK
LONDON
BRUSSELS
SAN FRANCISCO

RONALD G. DOVE, JR.
TEL 202.662.5685
FAX 202.778.5685
RDOVE@COV.COM

August 20, 2003

BY HAND DELIVERY

Office of the General Counsel
United States Copyright Office
James Madison Memorial Building
Room 403
First and Independence Avenue, S.E.
Washington, D.C. 20540

Re: Distribution of 1998 and 1999 Cable Royalty Funds, Docket No. 2001-8 CARP CD 98-99

Dear Sir:

Enclosed please find an original, five copies, and an extra copy for date-stamping of the PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF THE PUBLIC TELEVISION CLAIMANTS in the above-captioned proceeding. The certificate of service is included following the pleading.

In accordance with the CARP's July 18, 2003 Order, we have also enclosed a CD Rom containing the document in a format compatible with Word 97.

Please date-stamp the extra copy and return it to the waiting messenger.

Thank you.

Sincerely,

Ronald G. Dove, Jr.

Counsel to Public Television Claimants

Enclosure
RGD/rf